

# A NEW SUBFAMILY, NEW GENERA AND NEW SPECIES OF REDUVIIDAE (HEMIPTERA-HETEROPTERA)

By N. C. E. MILLER

IN this paper a new subfamily is established and new genera and species of Reduviidae from the Ethiopian, Oriental and Australian Regions are described and figured.

For the loan of types and other specimens of the genus *Tiarodes* which I have revised, I am greatly indebted to Dr. S. von Kéler, Zoologisches Museum, Humboldt Universität, Berlin (*Tiarodes dubius* Reuter); Dr. René Malaise, Naturhistoriska Riksmuseet, Stockholm (*T. cruentus* Stål, *T. varicolor* Stål); Professor Dr. Sachtleben, Deutsches Entomologisches Institut, Berlin, (*T. frühstorferi* Breddin, *T. waterstradi* Breddin, *T. rabiosus* Miller, *T. nitidus* Miller); Dr. H. C. Blöte, Rijksmuseum van Natuurlijke Historie, Leiden (*T. convivus* Miller, *T. serenus* Miller); Dr. Eva Halaszfy and Dr. Á. Soós, Hungarian National Museum, Budapest (*T. xanthusi* Reuter).

I have also to thank Dr. S. L. Tuxen, Universitetets Zoologiske Museum, Copenhagen, for the photograph of the holotype of *Tiarodes rufithorax* Reuter, and the Photographic Department of the British Museum, Natural History, London, for the photographs of the remaining species of *Tiarodes*.

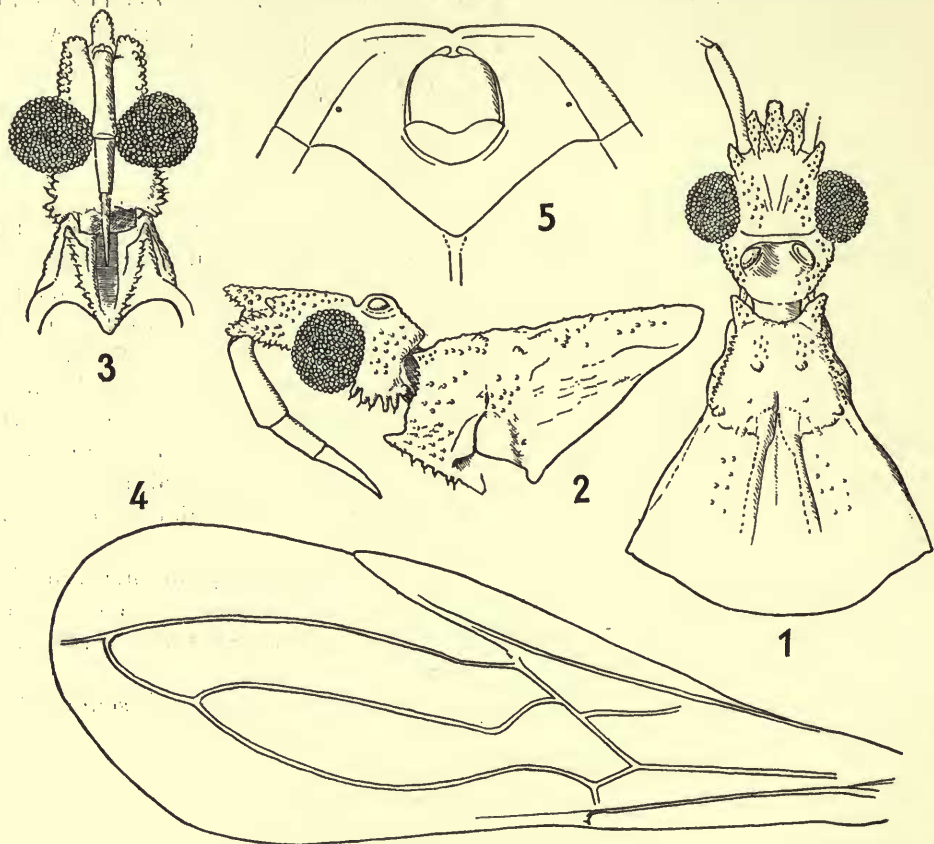
Except where otherwise stated, holotypes are in the British Museum, (Natural History), London.

## Subfamily STENOPODINAE

### *PARAGYLLA* gen. nov.

SIZE. Small. Basal segment of antennae moderately thick, setose, longer than anteocular; segment 2 longer than basal segment. Head tuberculate, shorter than pronotum; interantennal projections present; tylus and bucculae produced anteriorly; gula flattened; eyes large, prominent, longer than height of head, narrowly separated at their lower margins; postocular tuberculate on lower surface laterally; ocelli large, elevated, widely separated; vertex wider than an eye; antennophores equidistant between eyes and apex of head; rostrum compressed laterally; basal segment subequal in length to remaining segments together; segment 3 strongly compressed, acute, longer than segment 2. Anterior pronotal lobe shorter than posterior lobe, laterally tuberculate and with tubercles on disc; lateral angles of collar produced; lobe medially, longitudinally sulcate basally; posterior lobe medially, longitudinally sulcate with a carina on each side of sulcus; humeral angles feebly produced; prosternum laterally produced; sides of stridu-

latory furrow tuberculate; mesosternum with an elliptical sulcus; pronotum, pleura, metasternum, minutely granulose; scutellum with apex produced and with short, conical projection basally laterally; disc feebly depressed. Hemelytra extending beyond apex of abdomen; enclosed cell absent. Legs slender; anterior



FIGS. 1-5. *Paragylla calida* gen. nov., sp. n. (1) Head and pronotum, dorsal view. (2) *Idem*, lateral view. (3) Head and prosternum, ventral view. (4) Hemelytron. (5) Apex of abdomen, ventral view.

tarsi with 2 segments. Abdomen medially excised apically; midventrally longitudinally carinate, except segment 7; segment 8 exposed; vestiges of dorsal gland ostioles on segments 4, and 5 only (indistinct on 4). Type species, *Paragylla calida* sp. n. Text-figs. 1-5.

***Paragylla calida* sp. n.**

COLOUR. Testaceous with faint reddish suffusion. Head somewhat dark; scutellum brown. Hemelytral membrane very pale stramineous with infumate suffusion; metathoracic wings hyaline, whitish.

STRUCTURE. Basal antennal segment feebly curved, somewhat constricted basally; segment 2 about one-quarter longer than basal segment. Tubercles on postocular moderately long, thick, setigerous, fused basally. Tubercles on vertex and bucculae low, rounded. Ocellar interspace medially, longitudinally sulcate, about three times as wide as an ocellus. Space between lower margin of eyes subequal in width to basal rostral segment. Scutellar spine subacute, horizontal. Humeral angles with a short, rounded tubercle.

Total length, 10.50 mm.; hemelytra, 7.50 mm.; greatest pronotal width, 2.50 mm.

One ♂ (holotype), 1 ♂ (paratype), W. Australia, Nicol Bay dist. Dr. Clement (B.M. 1900-220).

Allied to *Agylla* Stål, 1865, *Hem. Afr.* 3: 150. Differs in having the ocelli widely separated, the eyes narrowly separated at their lower margins, the rostrum somewhat flattened (third segment strongly flattened), segment 2 shorter than segment 3, and in lacking an enclosed cell on the hemelytral membrane at base of internal cell.

### *DIOKTEROCORIS* gen. nov.<sup>1</sup>

SIZE. Small. Basal segment of antennae moderately thick, feebly curved; segment 2 slender; remaining segments filiform; antennophores nearer to apex of head than to eyes; head longer than pronotum; gula flattened; lower lateral margins tuberculate; bucculae produced; tylus feebly elevated; length of eyes less than height of head; surface of head, except gula, granulose; ocelli moderately large, widely separated; postocular somewhat flattened dorsally; basal segment of rostrum longer than remaining segments together; segment 2 with robust setae or spines on outer surface apically. Pronotum wider than long; anterior lobe longer than posterior lobe; lateral angles of collar produced; humeral angles rounded; prosternum produced laterally; scutellum produced apically; postscutellum with an elevation on apical margin medially. Hemelytra extending to apex of abdomen. Anterior femora moderately incrassate, with 2 rows of moderately long, setigerous spines and a few short spines on lower surface; upper surface and laterally with low, setigerous tubercles; anterior tibiae shorter than femora; median and posterior legs slender.

Type species, *Diokterocoris sudanicus* sp. n. Text-figs. 6-9.

### *Diokterocoris sudanicus* sp. n.

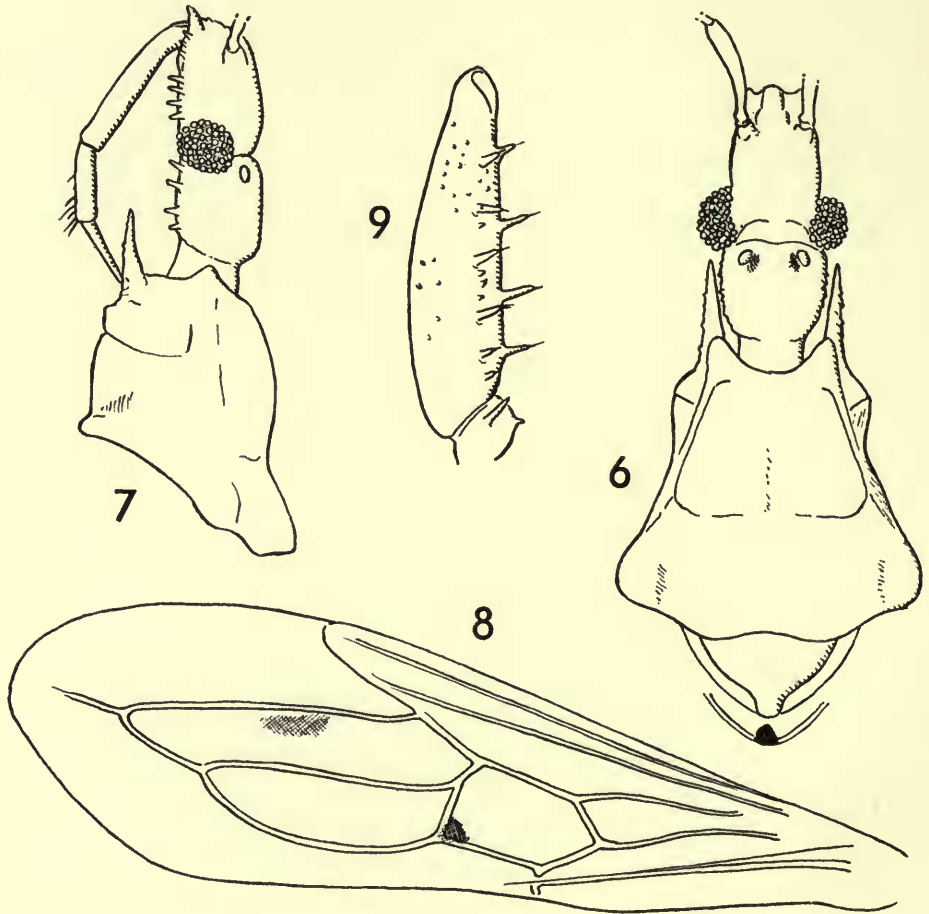
COLOUR. Pale testaceous. Head darker and with a brown spot near inner margin of ocelli. Elevation on postscutellum piceous. Apex of corium faintly suffused with brown; discal cell and external cell of membrane with faint infumate suffusion.

Total length, 7.50 mm.; hemelytra, 5.00 mm.; Greatest pronotal width, 1.60 mm.

One ♀ (holotype), Sudan, Taladir, 11.x.1920, Maj. Graham, 1 ♀ (paratype), Mongalla, 6.xii.1917, J. R. Yardley.

<sup>1</sup> διοκτίρη = a pursuer, κορίς = a bug.

Allied to *Padasastra* Villiers (1948, *Réduv. Afric. noire*, p. 373) and *Collartiella* Schouteden (1931, *Ann. Mus. Congo belg. Zool.* (3), 1 : 109) from both of which it differs in the structure of the head and armature of the anterior femora. Also allied to *Staccia* Stål (1865, *Hem. Afr.* 3 : 150) from which it differs similarly and also in having no spines on the inner face of the basal rostral segment.



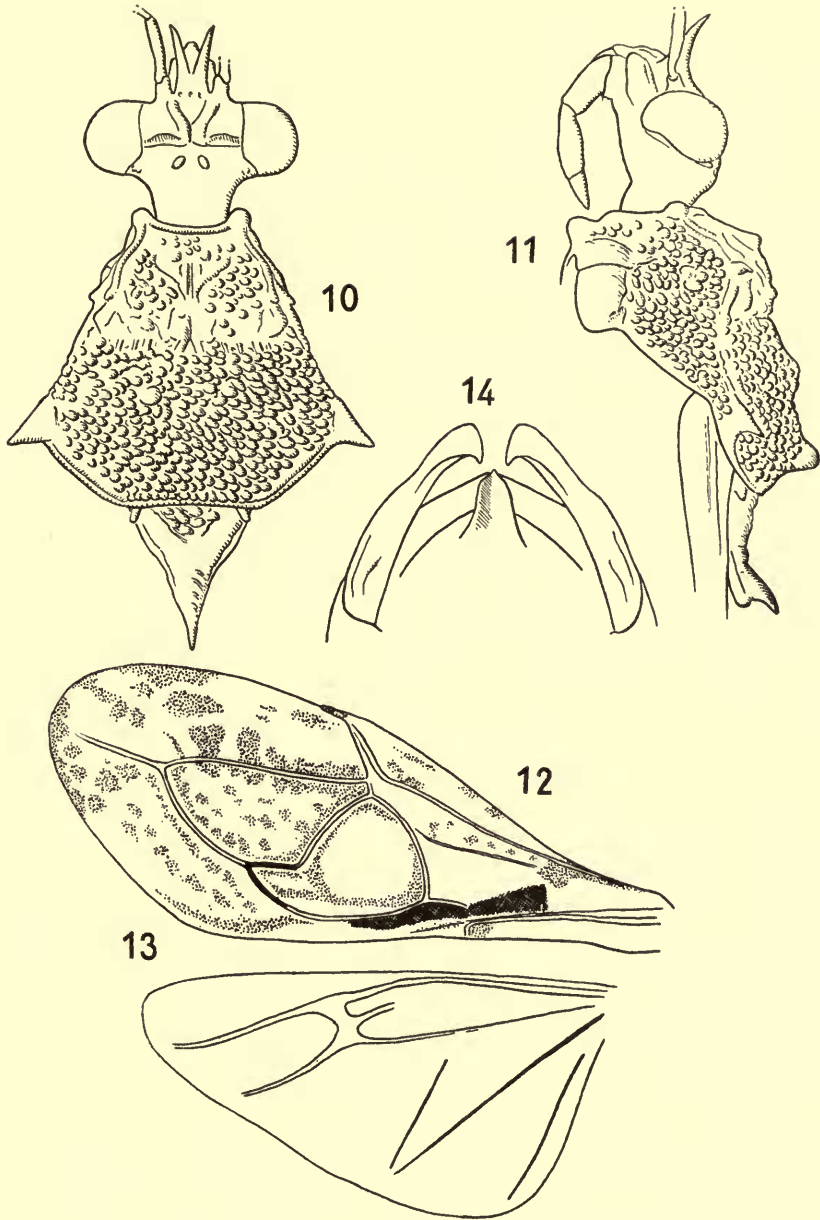
FIGS. 6-9. *Diokterocoris sudanicus* gen. nov., sp. n. (6) Head, pronotum, scutellum and postscutellum, dorsal view. (7) Head and pronotum, lateral view. (8) Hemelytron. (9) Anterior femur.

Subfamily CETHERINAE

*Caprocethera crudelis* sp.n.

(Text-figs. 10-14)

COLOUR. Testaceous. Head laterally, gula, piceous. Eyes black. Basal rostral segment with suffusion, apical segment piceous. Carinae on anterior pronotal lobe



FIGS. 10-14. *Caprocethera crudelis* sp. n. (10) Head, pronotum and scutellum, dorsal view. (11) *Idem*, lateral view. (12) Hemelytron. (13) Metathoracic wing. (14) Apex of pygophore, dorsal view.

and some tubercles on posterior lobe pale; collar, propleural episternum anteriorly piceous; humeral spines piceous; apex of scutellum very pale testaceous; spine and apex of disc piceous; meso- and metapleura with piceous suffusion; stridulatory furrow, meso- and metasternum, piceous. Hemelytra with brown and piceous suffusion as in Text-fig. 12. Abdomen very pale testaceous; mid-ventrally with a large, discal brown suffusion; sublaterally with triangular spots and laterally with suffusion on segments 3-6, piceous; pygophore brown; connexivum dorsally with piceous suffusion at base of each segment. Anterior and median tibiae missing; posterior tibiae whitish yellow with a median, basal and apical black annulation; basal segment of posterior tarsi black; segments 2 and 3 whitish yellow; segment 3 suffused with piceous apically; femora pale yellowish white with apex broadly and confluent suffusion, piceous.

STRUCTURE. Differs from *Caprocethera cave* Breddin (1903, *Sitz. Ges. Naturfr. Berlin*, p. 116), in having the spines between the antennophores more curved, the sulci on vertex and transverse sulcus wider and deeper, the anterior pronotal lobe with short, subacute, conical tubercles, discal tubercles on posterior lobe moderately narrow and rounded apically, the posterior lobe more coarsely rugose and tuberculate, the basal lateral scutellar spines less acute and the apical spine longer and more acute.

The pygophore in this new species has a moderately wide, subapical, acute, more or less parallel sided process, angulately concave on inner surface.

Total length, 10.50 mm.; hemelytra, 7.00 mm.; greatest pronotal width, 3.50 mm. One ♂ (holotype), Ghana, Ifione, 2. v. 1957, H. Roberts.

#### Sub-family REDUVIINAE

### *PHELETOCORIS* gen. nov.<sup>1</sup>

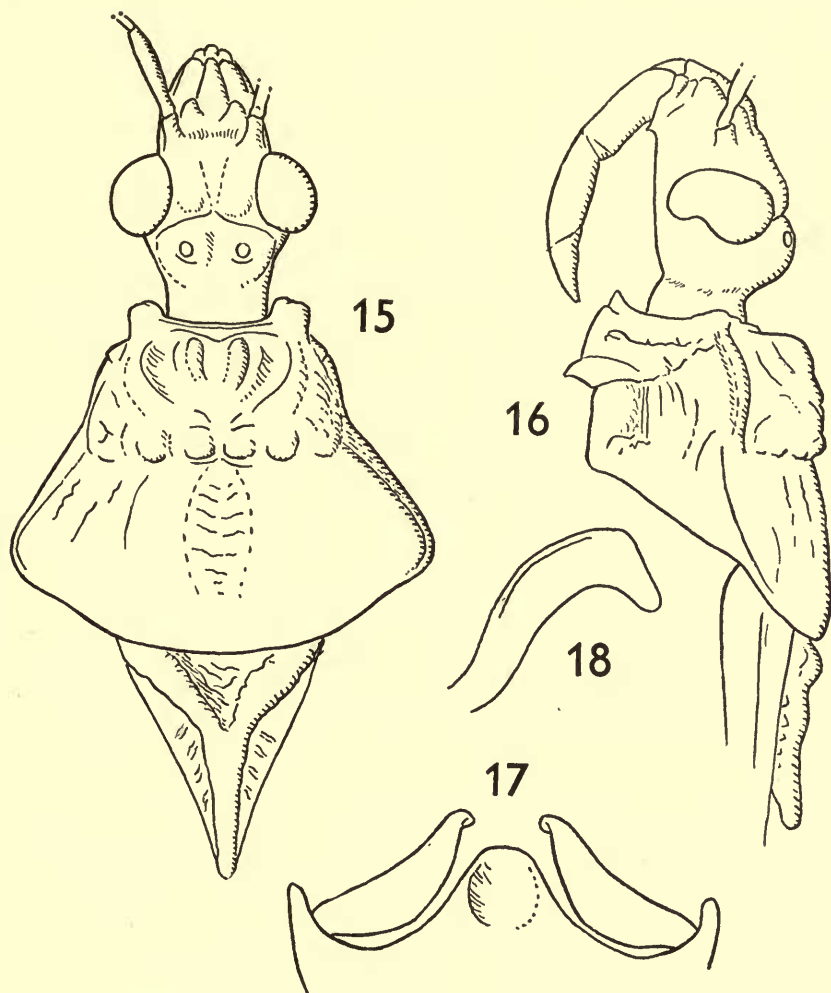
SIZE. Small. Basal segment of antennae as long as anteocular; segment 2 about five times longer than basal segment; antennophores nearer to eyes than to apex of head; basal segment of rostrum subequal in length to segment 2; head shorter than pronotum; anteocular subequal in length to postocular; vertex wider than an eye, with a bifurcate sulcus basally and a rounded elevation laterally basally; ocelli widely separated, feebly elevated; postocular gradually narrowed to base and medially sulcate between ocelli. Pronotum wider than long; anterior lobe shorter than posterior lobe; laterally carinate and with sulci and low elevations on disc; posterior lobe medially depressed and laterally carinate; depression with feeble transverse sulci; prosternum with a median tubercle anteriorly; posterior margin produced, acute, curved downwards; scutellum as long as wide with apex produced and disc excavate. Hemelytra extending to apex of abdomen; base of external cell of membrane wider than base of internal cell. Abdomen somewhat expanded, elliptical in outline; segments 4-6 ventrolaterally feebly depressed. Anterior femora moderately incrassate; anterior and median tibiae with a fossula spongiosa; apical segment of tarsi as long as remaining segments together.

Type species, *Pheletocoris sordidus* sp. n. Text-figs. 15-18.

<sup>1</sup> φηλήτης = a thief, κορίς = bug.

*Pheletocoris sordidus* sp. n.

COLOUR. Piceous. Elevations on vertex, lateral angles of collar, elevations on anterior pronotal lobe, parts of posterior lobe, particularly posteriorly, suffused with testaceous. Corium with testaceous suffusion medially; area between claval



FIGS. 15-18. *Pheletocoris sordidus* gen. nov., sp. n. (15) Head, pronotum and scutellum, dorsal view. (16) *Idem*, lateral view. (17) Apex of pygophore, terminal view. (18) Harpago.

suture and *Cu* with a fuscous spot; membrane infumate. Connexival segments with a testaceous spot at external apical angle. Anterior and median tibiae with a little less than half basally, posterior tibiae suffused with reddish testaceous; tarsi reddish testaceous; segment 3 suffused with piceous.

STRUCTURE. Vertex about one and a half times wider than an eye; eyes a little shorter than height of head. Sulci on median depression on posterior pronotal lobe feeble. Fossula spongiosa a little less than one-third as long as tibia.

Total length, 10.00 mm.; hemelytra, 6.50 mm.; greatest pronotal width, 3.20 mm.

One ♂ (holotype), Solomon Islands, Guadalcanal, Mamara, 8.viii.1956, E. S. Brown.

Belongs to the *Velitra* complex. Differs from *Velitra* Stål (1865, *Hemipt. Afric.* 3: 122) in having the vertex relatively wider and with elevations basally laterally, the posterior pronotal lobe laterally carinate and the abdomen rounded mid-ventrally, not flattened.

### *DILOPHOCORIS* gen. nov.<sup>1</sup>

SIZE. Small. Basal segment of antennae shorter than anteocular; segment 2 longer than basal segment; apical segments subequal in length. Head shorter than pronotum, transverse, tuberculate; postocular wider than anteocular; vertex wider than an eye; tylus somewhat elevated; interantennal elevations present; ocelli widely separated; antennophores nearer to eyes than to apex of head; gula setose; rostrum moderately thick; basal segment subequal in length to segment 2; all segments setose. Anterior pronotal lobe shorter than posterior lobe with minute tubercles arranged in a pattern; anterior lobe medially, longitudinally sulcate in basal half; posterior lobe widely sulcate anteriorly, the sulcus with transverse carinulae; propleura medially produced; posterior pronotal lobe, pleura, scutellum, tuberculate; apex of scutellum produced; disc damaged; prosternum on each side of stridulatory furrow with setigerous tubercles. Hemelytra extending to apex of abdomen; veins of corium tuberculate. Femora moderately incrassate; tuberculate on upper surface; anterior and median femora spinose on lower surface; fossula spongiosa present on anterior and median tibiae.

Type species, *Dilophocoris plagiatus* sp. n. Text-figs. 19-21.

### *Dilophocoris plagiatus* sp. n.

COLOUR. Basal antennal segment testaceous; remaining segments piceous. Head testaceous with vertex and postocular, except laterally, piceous. Thorax piceous; acetabula suffused with testaceous. Corium testaceous with costa basally, a wide median transverse stripe and apex narrowly brownish infumate; membrane infumate; base of veins of internal cell, external vein of external cell testaceous. Abdomen testaceous; connexival segments 2-6 with a quadrate piceous spot; segments 8 and 9 dorsally suffused with piceous. Tarsi testaceous; tibiae piceous, narrowly testaceous basally; femora testaceous with a wide, subapical piceous annulation; coxae and trochanters testaceous.

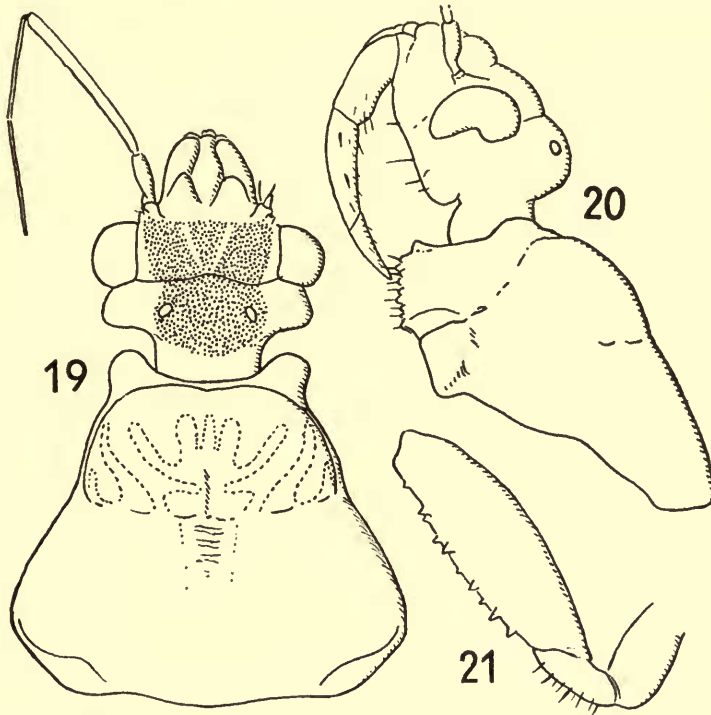
STRUCTURE. Segment 2 of antennae thicker and four times as long as basal segment; apical segments filiform. Ocellar interspace twice as wide as space between an ocellus and an eye; ocelli moderately large; vertex about three times wider than

<sup>1</sup> *διλόφορος* = with 2 humps, *κορίς* = a bug.



an eye. Scutellar spine horizontal, rounded apically. Produced portion of propleura short, conical. Setae on gula, rostrum, sides of stridulatory furrow robust. Tubercles very short and with short, recumbent setae. Fossula spongiosa very short.

Total length, 8.00 mm.; hemelytra, 5.00 mm.; greatest pronotal width, 2.00 mm.



FIGS. 19-21. *Dilophocoris plagiatus* gen. nov., sp. n. 19. Head and pronotum, dorsal view. (20) *Idem*, lateral view. (21) Anterior femur, coxa and trochanter.

One ♀ (holotype), Australia, Queensland, Mackay, A. J. Turner (B.M. 1905-125).

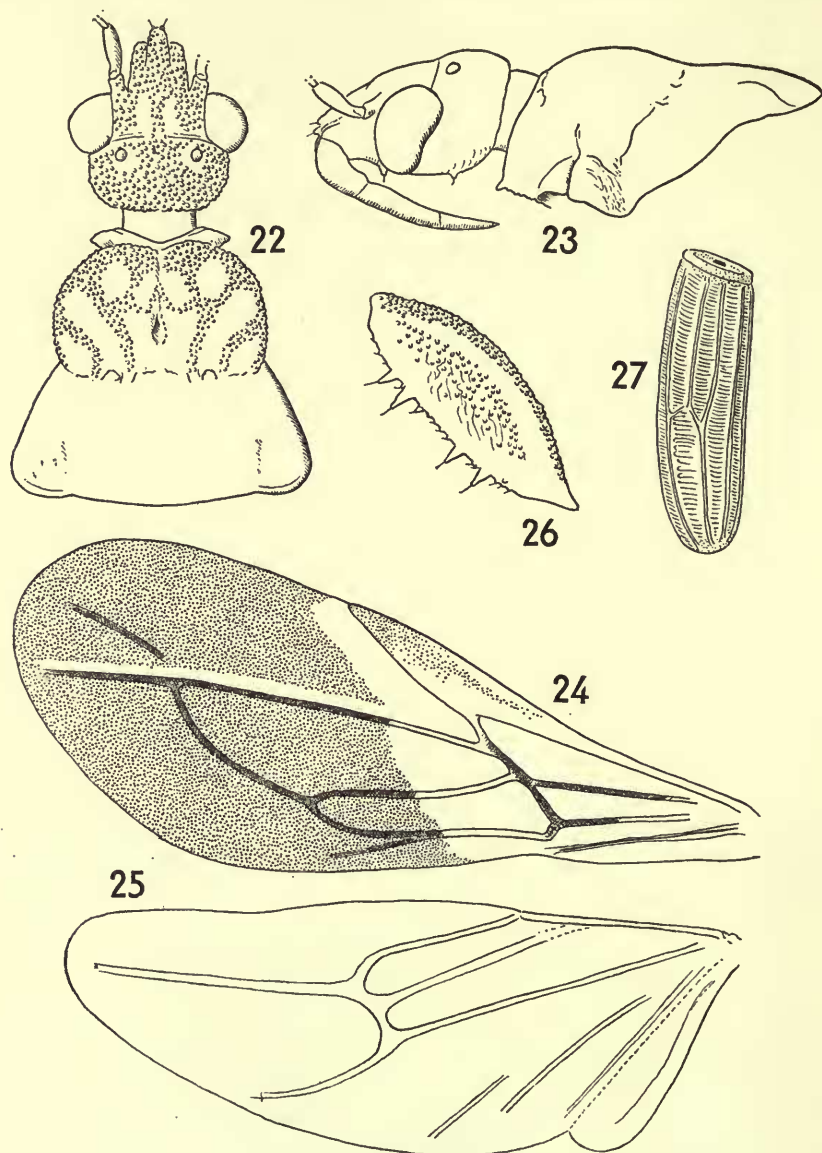
The affinity of this new genus is doubtful. It is possibly allied to *Sphedanocoris* Stål, 1866, *Öfv. Vet.-Ak. Förh.*, p. 240.

### **POECILOPTEROCORIS** gen. nov.<sup>1</sup>

SIZE. Very small. Segments 1 and 2 of antennae moderately thick; segment 2 longer than basal segment; segments 3 and 4 together subequal in length to 1 and 2 together; segments 2-4 with abundant, short, forwardly directed setae; basal segment extending beyond apex of head; antennophores nearer to eyes than to apex of head; anteocular shorter than postocular, the latter transverse and abruptly constricted basally; tylus with setigerous tubercles apically; vertex wider than an eye; ocelli moderately large, widely separated, not prominent; head smooth

<sup>1</sup> ποικιλόπτερος = with wing of changeful colour, κορίς = bug.

with areas of low setigerous tubercles; gula concave, laterally with tubercles; basal segment of rostrum subequal in length to segment 2. Pronotum as wide as long; lateral angles of collar produced; anterior lobe longer than posterior lobe, smooth with areas of low setigerous tubercles and a submedian foveole; posterior lobe rugose punctate and with short carinae anteriorly; transverse sulcus foveolate;



FIGS. 22-27. *Poecilopteroecoris amabilis* gen. nov., sp. n. (22) Head and pronotum, dorsal view. (23) *Idem*, lateral view. (24) Anterior femur. (25) Hemelytron. (26) Metathoracic wing. (27) Ovum.

humeral angles rounded; prosternum laterally tuberculate; lateral margins of stridulatory furrow with low, setigerous tubercles; scutellum as wide as long with apex produced; disc excavate, rugose. Hemelytra extending almost to apex of abdomen; interveinal areas of corium and base of membranal cells hyaline; base of internal cell of membrane wider than base of external cell; veins of corium thick, prominent. All femora incrassate and with low, setigerous tubercles on upper and lateral surfaces and with linear areas lacking tubercles; anterior femora spined on lower surface; anterior tibiae with setigerous tubercles on lower surface; tarsi with 3 segments; fossula spongiosa on anterior and median tibiae.

Type species, *Poecilopterocoris amabilis* sp. n. Text-figs. 22-27.

### *Poecilopterocoris amabilis* sp. n.

COLOUR. Piceous. Apical segment of rostrum and humeral angles testaceous; tibiae, tarsi, coxae and trochanters testaceous. Connexivum pale testaceous with a quadrate spot at apex of segments piceous; apex of segment 7 piceous. Median and posterior femora with an obscure, pale testaceous annulation sub-basally.

STRUCTURE. Vertex a little more than twice as wide as an eye. Ocellar interspace a little less wide than vertex. Spines on anterior femora truncate apically and setigerous. Fossula spongiosa short and extended beyond apex of tibiae.

Total length, ♂ 4.50 mm., ♀ 5.00 mm.; hemelytra, ♂ 2.80 mm., ♀ 3.00 mm.; greatest pronotal width, ♂ 1.00 mm., ♀ 1.10 mm.

One ♂ (holotype), 1 ♀ (paratype), New Guinea, Lae, iii. 1957, R. W. Paine.

The affinity of this new genus is doubtful. Possibly it should be placed near *Sphedanocoris* Stål (loc. cit.).

Ovum (Text-fig. 27). Cylindrical; chorion feebly oblique at opercular end and with longitudinal carinae on most of surface; between carinae, some of which anastomose, there are transverse striae; operculum elliptical with a low, subovate elevation medially. Dark yellow with carinae brownish; operculum apparently whitish. Length, 1.10 mm. (dissected).

This is a large ovum in relation to the species and it is probable that only about 6-10 develop at one time.

### The Genus *TIARODES*<sup>1</sup> Burmeister

The genus *Tiarodes* was established by Burmeister in 1835 (*Handb.* 2: 237) for *Cimbus versicolor* Laporte (1832, *Essai Classif. Syst. Hem.*, p. 80 suppl.).

Some of the most brightly coloured of the Reduviidae are contained in the genus. Unfortunately, much of the brilliance is lost after death when the red or reddish yellow areas become darker and the white or pale yellow areas, for example, the spots on the corium or the connexival segments turn to a dull yellow. Metallic green or blue colours occur. These, however, do not fade as a rule, or become discoloured.

Little is known of the habitats and nothing of the prey of *Tiarodes* species; some have been found among decaying vegetable debris and also under the loose

<sup>1</sup> τιάρα = a tiara, in allusion to the shape of the head.

bark of dead trees. Specimens are frequently met with which have mites attached to the ventral surface and legs, a condition often to be observed in species belonging to other genera of Reduviidae occupying similar habitats.

The secluded type of life of *Tiarodes* species, no doubt, accounts for their being frequently overlooked by collectors, consequently in collections rarely is a species represented by more than single or a very few specimens.

Information concerning the developmental stages is equally scanty. The ova are deposited loosely and without adhesive in the soil or under the bark of trees.

The ovum of *T. nigrirostris* Stål, obtained by dissection is more or less regularly oval with a smooth chorion and with the opercular end less broadly rounded than the opposite end.

Up to the present time 33 species have been described. In the present paper 45 new species are described and photographically illustrated. Photographs are also provided of the species already described.

*Tiarodes rusticus* Distant (1919, *Entomologist*, 52: 245) should not have been placed in the genus. It has since been transferred to a new genus, *Neotiarodes* (Miller, 1957, *Bull. Brit. Mus*, 5, 2: 40-41).

Mention should be made of a representative of the genus from Ternate for the purpose of amplifying the distributional picture. It is unfortunately, in too damaged a condition for description. This specimen forms part of a collection received by me from the Rijksmuseum van Natuurlijke Historie, Leiden.

Dr. S. von Kéler, Zoologisches Museum, Humboldt Universität, Berlin kindly sent me a consignment of *Tiarodes* species among which is a species labelled by Breddin. The description, however, has not been published. In view of the fact that the data label bears no collector's name and the locality of origin is indecipherable, I have decided that it would be unwise to include this species in the present study, although it is undoubtedly a new species. It resembles in coloration *T. bradleyi* sp. n. from the Solomon Islands and also *T. obyannus* Distant from Obi Island.

I have not been able to examine the type of *T. kükenthali* Breddin. Professor Dr. Sachtleben, Deutsches Entomologisches Institut, Berlin has informed me that it cannot be traced in the collections at the Institut.

*Tiarodes* species may be divided into four distinct groups. The first, which I designate the *nigrirostris* group contains mostly the largest species varying from 20.00 mm. to 30.00 mm. in length and characterized by having a yellow discal spot and sometimes yellow suffusion basally on the corium of the hemelytra.

The head in this group is cylindrical, occasionally with obscure striations, mostly laterally, and sometimes sparsely setose. The antecular is appreciably narrowed towards the apex.

The prosternum is smooth and has no projections laterally. The anterior and median femora are strongly incrassate and the anterior and median tibiae are incrassate for about half their length, with the fossula spongiosa about half as long.

Present records show that this group is distributed in Indo-China, Malaysia and Indonesia.

The second group, the *waterstradti* group, contains species which are about 20.00 mm. in length and which are closer morphologically to those in the *nigrirostris*

group, but which have the anterior and median tibiae incrassate for a little more than a quarter of their length and the anterior and median femora moderately incrassate. The fossula spongiosa is about one-quarter as long as the tibiae and the meso- and metasternum have a median longitudinal carina.

The hemelytra in this group may be pale yellow or fuscous with a pale yellow discal spot, isolated or extended to the base of the corium.

To the third group I give the name *versicolor*. It contains species measuring approximately 10.00-20.00 mm. in length. The head is cylindrical with the gula somewhat flattened and with abundant, recumbent, spatulate setae. Viewed from above the antecular has parallel sides. It is also striate to a greater or less degree particularly laterally. The prosternum is produced laterally.

The hemelytra are fuscous or black and have usually a wide or narrow red or reddish yellow area or suffusion at the base of the corium, or a pale discal spot as well as a basal suffusion.

The fossula spongiosa are mostly about one-quarter as long as the tibiae, the apex of which is not very strongly incrassate.

This is widely distributed as will be seen from the list of species given in this paper.

Two species about 15.00 mm. in length from the Philippine Islands, namely *T. cruentus* Stål and *T. luzonicus* sp. n. constitute the fourth group, the *cruentus* group. These species have relatively more slender tibiae, a very short fossula spongiosa, relatively less incrassate anterior and median femora, narrower and very feebly striate head on which the transverse sulcus is very shallow. The prosternum is feebly produced laterally and the mesosternum has a wide sulcus medially. The hemelytra are distinctly bicolorous.

KEY TO *Tiarodes* GROUPS

- 1. Meso- and metasternum with a median longitudinal carina . . . . . 2
- Meso- and metasternum without a median longitudinal carina . . . . . 3
- 2. Anterior tibiae incrassate for half their apical length . . . . . *nigrirostris* group
- Anterior tibiae incrassate for one-fourth of their apical length . . . . . *waterstradti* group
- 3. Mesosternum with a median sulcus . . . . . *cruentus* group
- Mesosternum without a median sulcus . . . . . *versicolor* group

KEY TO SPECIES IN *nigrirostris* GROUP

- 1. Thorax black with faint metallic lustre . . . . . 2
- Thorax not black . . . . . 3
- 2. Abdomen ventrally red with large black spot on seventh segment . . . . . *nobilis* sp. n.
- Abdomen ventrally with segments 2-5 red, 6 and 7 black . . . . . *pustulatus* Stål
- 3. Thorax including scutellum light red . . . . . *sakai* Miller
- Thorax yellow and black; scutellum black . . . . . 4
- 4. Pronotum yellow with feeble piceous suffusion on posterior lobe posteriorly . . . . . 5
- Pronotum differently coloured . . . . . 6
- 5. Abdomen ventrally yellow . . . . . *lotus* sp. n.
- Abdomen ventrally yellow with transverse black stripes . . . . . *opulentus* sp. n.
- 6. Posterior pronotal lobe dark yellow anteriorly, black posteriorly . . . . . 7
- Posterior or pronotal lobe mostly piceous . . . . . 9

7.	Connexivum yellow with black spots . . . . .	8
—	Connexival segments 2-5 black, 6 and 7 yellow . . . . .	<i>ostentans</i> sp. n.
8.	Meso- and metapleura black . . . . .	<i>nigrirostris</i> Stål
—	Meso- and metapleura reddish yellow . . . . .	<i>jucundus</i> sp. n.
9.	Connexival segments yellow with black spots . . . . .	10
—	Connexival segments 2-4 black, 5-7 yellow . . . . .	<i>sulaensis</i> sp. n.
10.	Discal spot on corium small, circular . . . . .	<i>scriptus</i> sp. n.
—	Discal spot on corium moderately large . . . . .	11
11.	Discal spot on corium extended to costal margin . . . . .	12
—	Discal spot on corium not extended to costal margin . . . . .	13
12.	Connexival segments 2 and 3 piceous . . . . .	<i>juncturus</i> Walker
—	Connexival segments 2 and 3 piceous with yellow spot . . . . .	<i>hieroglyphicus</i> Miller
13.	Connexivum of seventh segment dorsally piceous ; posterior pronotal lobe with an obscure oblique dark yellow spot on each side of median depression . . . . .	<i>erinnys</i> Miller
—	Connexivum of seventh segment dorsally piceous with a white spot apically ; posterior pronotal lobe with a distinct, moderately large oblique dark yellow spot on each side of median depression . . . . .	<i>xanthusi</i> Reuter

KEY TO SPECIES IN *waterstradti* GROUP

1.	Tibiae black ; pronotum castaneous . . . . .	<i>amoenus</i> Miller
—	Tibiae differently coloured ; pronotum yellow with piceous spot on anterior lobe posteriorly . . . . .	2
2.	Median and posterior tibiae black . . . . .	3
—	Median and posterior tibiae pale yellow with piceous suffusion basally and apically . . . . .	5
3.	Corium yellow with apex fuscous and with faint brownish suffusion between claval suture and <i>Cu</i> . . . . .	<i>simplex</i> sp. n.
—	Corium fuscous . . . . .	4
4.	Corium with large pale yellow discal spot extending to costal margin . . . . .	<i>waterstradti</i> Breddin
—	Corium with large pale yellow discal spot extending to costal margin and also to base . . . . .	<i>acutangulus</i> sp. n.
5.	Segments 1 and 2 of antennae piceous ; antennophores testaceous . . . . .	<i>sumatrensis</i> sp. n.
—	Segments 1 and 2 of antennae testaceous, basally and apically piceous ; antennophores black . . . . .	6
6.	Anterior pronotal lobe with very feeble diagonal depression subdorsally ; produced portion of posterolateral angles of posterior pronotal lobe thick, triangular, subacute . . . . .	<i>malayanus</i> Distant
—	Anterior pronotal lobe with a distinct, shallow, circular depression subdorsally ; produced portion of posterolateral angles of posterior pronotal lobe narrowly conical, acute . . . . .	<i>nemoralis</i> sp. n.

KEY TO SPECIES IN *versicolor* GROUP

1.	Size under 14.00 mm. . . . .	2
—	Size 14.00 mm. and greater . . . . .	8
2.	Pronotum unicolorous . . . . .	3
—	Pronotum not unicolorous . . . . .	7
3.	Abdomen entirely black or piceous . . . . .	4
—	Abdomen red with apical segments black . . . . .	5
4.	Corium black, narrowly reddish basally . . . . .	<i>serenus</i> Miller
—	Corium reddish fuscous, moderately broadly suffused with red basally . . . . .	<i>dohertyi</i> Miller
5.	Corium entirely fuscous . . . . .	<i>bradleyi</i> sp. n.

- Corium fuscous with base reddish or yellowish . . . . .	6
6. Base of corium broadly reddish . . . . .	<i>obyanus</i> Distant
- Base of corium narrowly yellow . . . . .	<i>biroi</i> sp. n.
7. Anterior pronotal lobe violaceous, collar red, corium black . . . . .	<i>browni</i> sp. n.
- Anterior pronotal lobe brown ; corium fuscous with apex pale yellow . . . . .	<i>picturatus</i> Distant
8. Corium with discal yellow spot . . . . .	9
- Corium without a discal yellow spot . . . . .	12
9. Gula entirely red . . . . .	10
- Gula piceous, narrowly red basally . . . . .	11
10. Abdomen ventrally piceous with violaceous lustre ; basal segments suffused with red . . . . .	<i>mirandus</i> Miller
- Abdomen ventrally reddish . . . . .	<i>bukii</i> Miller
11. Abdomen ventrally yellowish . . . . .	<i>elongatus</i> Miller
- Ventral abdominal segments 2 and 3 red . . . . .	<i>rufithorax</i> Reuter
12. Pronotum dark blue with metallic lustre . . . . .	13
- Pronotum light red . . . . .	18
13. Corium black . . . . .	14
- Corium almost entirely light red . . . . .	16
14. Legs yellow or red . . . . .	15
- Legs yellow ; femora apically, tibiae basally black . . . . .	<i>insulanus</i> sp. n.
15. Legs red ; abdomen light red . . . . .	<i>miles</i> sp. n.
- Legs yellow ; abdomen yellow . . . . .	<i>schultzei</i> sp. n.
16. Basal third of corium fuscous ; remainder light red . . . . .	<i>dubius</i> Reuter
- Basal third of corium not fuscous . . . . .	17
17. Hemelytral membrane black . . . . .	<i>varicolor</i> Stål
- Hemelytral membrane fuscous with basal half of internal cell and anal area yellow . . . . .	<i>elegans</i> Stål
18. Legs red ; clavus, greater part of area between claval suture and <i>Cu</i> yellow . . . . .	<i>varipennis</i> sp. n.
- Legs not entirely red ; clavus and area between claval suture and <i>Cu</i> black . . . . .	19
19. Femora piceous with bluish lustre . . . . .	20
- Femora red, apically piceous . . . . .	22
20. Scutellum coral red . . . . .	<i>kukenthali</i> Breddin
- Scutellum black or piceous . . . . .	21
21. Segments 2-5 of abdomen ventrally red ; remaining segments piceous with metallic blue lustre . . . . .	<i>atrahens</i> sp. n.
- Segments 2-5 of abdomen ventrally yellow ; remaining segments and mid-ventrally piceous . . . . .	<i>ovatus</i> Miller
22. Abdomen piceous ; scutellum reddish yellow . . . . .	23
- Abdomen and scutellum differently coloured . . . . .	24
23. Meso- and metapleura light red . . . . .	<i>brunneiventris</i> sp. n.
- Meso- and metapleura light red with metallic bluish spot . . . . .	<i>meldolae</i> Distant
24. Corium black or fuscous broadly laterally light red . . . . .	25
- Corium black or fuscous . . . . .	27
25. Segment 6 of connexivum pale yellow . . . . .	<i>convivus</i> Miller
- Segment 6 of connexivum not pale yellow . . . . .	26
26. Segment 6 of connexivum red . . . . .	<i>timorensis</i> sp. n.
- Segment 6 of connexivum piceous . . . . .	<i>frühstorferi</i> Breddin
27. Abdomen piceous ; segments 6 and 7 with connexivum yellow . . . . .	28
- Abdomen differently coloured . . . . .	29
28. Posterior femora piceous . . . . .	<i>mouhoti</i> sp. n.
- Posterior femora red, apically piceous . . . . .	<i>dux</i> sp. n.
29. Anterior tibiae piceous ; red in apical half . . . . .	30
- Anterior tibiae piceous . . . . .	32

30. Connexival segments 2-5 without a yellow spot; segment 6 ventrolaterally with a large yellow spot . . . . . *celebensis* sp. n.  
 — Connexival segments 2-5 with a yellow spot; abdominal segments 6, 7 and 9 yellow . . . . . 31
31. Other segments of abdomen ventrally piceous . . . . . *excellens* sp. n.  
 — Other segments of abdomen ventrally red, narrowly piceous with bluish lustre laterally . . . . . *salvazai* sp. n.
32. Connexival segments 2-5 without a yellow spot . . . . . 33  
 — Connexival segments 2-5 with a yellow spot . . . . . 41
33. Connexival segments 6 and 7 yellow . . . . . 34  
 — Connexival segment 6 yellow, 7 piceous . . . . . 35
34. Ventral abdominal segment 6 yellow, 7 piceous suffused with yellow . . . . . *helluo* sp. n.  
 — Ventral abdominal segments 6 and 7 piceous, yellow laterally . . . . . *obscuripennis* sp. n.
35. Anterior and median femora red, obscurely piceous apically . . . . . *rabiosus* Miller  
 — Anterior and median femora red, moderately broadly and distinctly piceous apically . . . . . 36
36. Abdomen ventrally mostly piceous . . . . . 37  
 — Abdomen ventrally mostly red . . . . . 38
37. Corium black with obscure reddish suffusion basally . . . . . *similis* sp. n.  
 — Corium fuscous with distinct, wide, reddish suffusion basally . . . . . *ambulator* sp. n.
38. Segment 7 of abdomen yellow suffused with piceous apically; segment 6 yellow suffused with red mid-ventrally . . . . . *assamensis* sp. n.  
 — Segment 7 of abdomen piceous; segment 6 piceous suffused with yellow laterally . . . . . 39
39. Segments 2-5 of abdomen ventrally piceous . . . . . *cameronicus* sp. n.  
 — Segments 2-5 of abdomen ventrally not piceous . . . . . 40
40. Segments 2-5 of abdomen red mid-ventrally . . . . . *versicolor* (Laporte)  
 — Segments 2-4 red mid-ventrally; segment 5 piceous with faint reddish suffusion . . . . . *servus* sp. n.
41. Ventral abdominal segments 6 and 7 yellow . . . . . 42  
 — Ventral abdominal segments 6 and 7 piceous, yellow laterally . . . . . 47
42. Ventral abdominal segments 6 and 7 with brown suffusion mid-ventrally . . . . . *hageni* sp. n.  
 — Ventral abdominal segments 6 and 7 not suffused with brown . . . . . 43
43. Corium fuscous with red suffusion basally . . . . . 44  
 — Corium black with red or yellow suffusion basally . . . . . *hilaris* sp. n.
44. Corium with very faint reddish suffusion basally . . . . . *gracilis* sp. n.  
 — Corium with moderately broad reddish suffusion basally . . . . . 45
45. Anterior and median femora red, narrowly piceous apically; meso- and metapleura piceous with metallic blue lustre . . . . . *vilis* sp. n.  
 — Anterior and median femora red, broadly piceous apically; meso- and metapleura red . . . . . 46
46. Apical margin of seventh ventral abdominal segment yellow . . . . . *vorax* Miller  
 — Apical margin of seventh ventral abdominal segment piceous . . . . . *propinquus* sp. n.
47. Segment 6 of abdomen ventrolaterally with a large triangular yellow spot . . . . . *vexillarius* sp. n.  
 — Segment 6 of abdomen ventrolaterally with a yellow spot or suffusion . . . . . 48
48. Segment 7 of abdomen ventrolaterally with a yellow spot or suffusion . . . . . 49  
 — Segment 7 of abdomen ventrolaterally without a yellow spot or suffusion . . . . . *obscuripes* sp. n.
49. Corium fuscous . . . . . 50  
 — Corium fuscous with narrow reddish suffusion basally . . . . . 51
50. Connexivum of seventh abdominal segment ventrally basally yellow . . . . . *flavicans* sp. n.  
 — Connexivum of seventh abdominal segment ventrally piceous . . . . . *taipingensis* Miller
51. Reddish suffusion at base of corium well defined . . . . . 52  
 — Reddish suffusion at base of corium ill-defined . . . . . 54
52. Spots on connexival segments 3-5 wide and well defined . . . . . 53



- Spots on connexival segments 3–5 narrow and with somewhat suffused margins *dyak* sp. n.
- 53. Ventral abdominal segments 2 and 3 moderately broadly red ; part of segments 4 and 5 red . . . . . *mjöbergi* sp. n.
- Ventral abdominal segments 2 and 3 narrowly red ; part of segments 4 and 5 not red *nitidus* Miller
- 54. Abdominal segment 7 ventrolaterally with a large, pale yellow spot . . . . . *nebulosus* sp. n.
- Abdominal segment 7 ventrolaterally with a very small pale yellow spot . . . . . 55
- 55. Segment 2 of abdomen mid-ventrally red . . . . . *selangorensis* Miller
- Segments 2–6 of abdomen mid-ventrally suffused with red . . . . . *veneficus* Miller

KEY TO SPECIES IN *cruentus* GROUP

- 1. Corium black with apical half coral red and base with faint red suffusion ; membrane black . . . . . *luzonicus* sp. n.
- Corium light red with wide, transverse fuscous stripe sub-basally ; membrane fuscous . . . . . *cruentus* Stål

*List of Species in nigrirostris Group*

	Distribution	Holotype
<i>Tiarodes erinnys</i> Miller	. Sarawak	. British Museum (N.H.), London.
<i>T. hieroglyphicus</i> Miller	. Malaya	. " " "
<i>T. jucundus</i> sp. n.	. Sumatra	. Rijksmuseum van Natuurlijke Historie, Leiden.
<i>T. juncturus</i> Walker	. <i>patria ignota</i>	. British Museum (N.H.), London.
<i>T. lotus</i> sp. n.	. Sumatra	. Rijksmuseum van Natuurlijke Historie, Leiden.
<i>T. nigrirostris</i> Stål	. Java	. Naturhistoriska Riksmuseet, Stockholm.
<i>T. nobilis</i> sp. n.	. Ceram	. British Museum (N.H.), London.
<i>T. opulentus</i> sp. n.	. Siam	. " " " "
<i>T. ostentans</i> sp. n.	. Indo-China	. Rijksmuseum van Natuurlijke Historie, Leiden.
<i>T. pustulatus</i> Stål	. Batchian	. British Museum (N.H.), London
<i>T. sakai</i> Miller	. Malaya	. " " " "
<i>T. scriptus</i> sp. n.	. Borneo	. " " " "
<i>T. sulaensis</i> sp. n.	. Sula I.	. Naturhistoriska Riksmuseet, Stockholm.
<i>T. xantusi</i> Reuter	. Borneo	. Magyar Nemzeti Múzeum, Budapest, Hungary.

*List of Species in waterstradi Group*

<i>Tiarodes acutangulus</i> sp. n.	. Sarawak	. British Museum (N.H.), London.
<i>T. amoenus</i> Miller	. "	. " " " "
<i>T. malayanus</i> Distant	. Malaya	. " " " "
<i>T. nemoralis</i> sp. n.	. "	. " " " "
<i>T. simplex</i> sp. n.	. Borneo	. Rijksmuseum van Natuurlijke Historie, Leiden.
<i>T. sumatrensis</i> sp. n.	. Sumatra	. Zoologisches Museum, Humboldt Universität, Berlin.
<i>T. waterstradi</i> Breddin	. Borneo	. Deutsches Entomologisches Institut, Berlin.

*List of Species in versicolor Group*

<i>Tiarodes ambulator</i> sp. n.	. Sumatra	. Zoologisches Museum, Humboldt Universität, Berlin.
<i>T. assamensis</i> sp. n.	. Assam	. Naturhistoriska Riksmuseet, Stockholm.
<i>T. attrahens</i> sp. n.	. Sumba I.	. Rijksmuseum van Natuurlijke Historie, Leiden.

<i>T. biroï</i> sp. n.	.	New Guinea	.	Magyar Nemzeti Muzeum, Budapest, Hungary.
<i>T. bradleyi</i> sp. n.	.	Solomon Is.	.	British Museum (N.H.), London.
<i>T. browni</i> sp. n.	.	"	.	" " " "
<i>T. brunneiventris</i> sp. n.	.	Assam	.	" " " "
<i>T. bukit</i> Miller	.	Malaya	.	" " " "
<i>T. cameronicus</i> sp. n.	.	"	.	" " " "
<i>T. celebensis</i> sp. n.	.	Celebes	.	Rijksmuseum van Natuurlijke Historie, Leiden.
<i>T. convivus</i> Miller	.	Enggano Is.	.	" " " "
<i>T. dohertyi</i> Miller	.	Halmahera	.	British Museum (N.H.), London.
<i>T. dubius</i> Reuter	.	Philippine Is.	.	Zoologisches Museum, Humboldt Universität, Berlin.
<i>T. dux</i> sp. n.	.	Burma	.	British Museum (N.H.), London.
<i>T. dyak</i> sp. n.	.	Borneo	.	Magyar Nemzeti Muzeum, Budapest, Hungary.
<i>T. elegans</i> Stål	.	Ceylon	.	?
<i>T. elongatus</i> Miller	.	Sarawak	.	British Museum (N.H.), London.
<i>T. excellens</i> sp. n.	.	Siam	.	" " " "
<i>T. flavicans</i> sp. n.	.	Malaya	.	" " " "
<i>T. frühstorferi</i> Breddin	.	Lombok	.	Deutsches Entomologisches Institut, Berlin.
<i>T. gracilis</i> sp. n.	.	Borneo	.	Rijksmuseum van Natuurlijke Historie, Leiden.
<i>T. hageni</i> sp. n.	.	Sumatra	.	" " " " " "
<i>T. helluo</i> sp. n.	.	Cochin China	.	" " " " " "
<i>T. hilaris</i> sp. n.	.	Borneo	.	Magyar Nemzeti Muzeum, Budapest, Hungary.
<i>T. insulanus</i> sp. n.	.	Philippine Is.	.	British Museum (N.H.), London.
<i>T. kukenhali</i> Breddin	.	Batchian	.	?Deutsches Entomologisches Institut, Berlin.
<i>T. meldolae</i> Distant	.	Andaman Is.	.	British Museum (N.H.), London.
<i>T. miles</i> sp. n.	.	Philippine Is.	.	" " " "
<i>T. mirandus</i> Miller	.	Malaya	.	" " " "
<i>T. mjobergi</i> sp. n.	.	Sarawak	.	" " " "
<i>T. mouhoti</i> sp. n.	.	Cambodia	.	" " " "
<i>T. nebulosus</i> sp. n.	.	Borneo	.	Rijksmuseum van Natuurlijke Historie, Leiden.
<i>T. nitidus</i> Miller	.	"	.	Deutsches Entomologisches Institut, Berlin.
<i>T. obscuripennis</i> sp. n.	.	Malaya	.	British Museum (N.H.), London.
<i>T. obscuripes</i> sp. n.	.	Sarawak	.	" " " "
<i>T. obyanus</i> Distant	.	Obi Is.	.	" " " "
<i>T. ovatulus</i> Miller	.	Solor Is.	.	" " " "
<i>T. picturatus</i> Distant	.	Batchian	.	" " " "
<i>T. propinquus</i> sp. n.	.	Borneo	.	Rijksmuseum van Natuurlijke Historie, Leiden.
<i>T. rabiosus</i> Miller	.	Java	.	Deutsches Entomologisches Institut, Berlin.
<i>T. rufithorax</i> Reuter	.	Malaya	.	Magyar Nemzeti Museum, Budapest, Hungary.
<i>T. salvazai</i> sp. n.	.	Indo-China	.	Rijksmuseum van Natuurlijke Historie, Leiden.
<i>T. schultzei</i> sp. n.	.	Philippine Is.	.	British Museum (N.H.), London.
<i>T. selangorensis</i> Miller	.	Malaya	.	" " " "
<i>T. serenus</i> Miller	.	New Guinea	.	Rijksmuseum van Natuurlijke Historie, Leiden.
<i>T. servus</i> sp. n.	.	Sumatra	.	British Museum (N.H.), London.
<i>T. similis</i> sp. n.	.	Malaya	.	" " " "
<i>T. taipingensis</i> Miller	.	"	.	" " " "
<i>T. timorensis</i> sp. n.	.	Timor	.	" " " "
<i>T. varicolor</i> Stål	.	Philippine Is.	.	Naturhistoriska Riksmuseet, Stockholm.
<i>T. varipennis</i> sp. n.	.	Sumatra	.	Rijksmuseum van Natuurlijke Historie, Leiden.
<i>T. veneficus</i> Miller	.	Malaya	.	British Museum (N.H.), London.
<i>T. versicolor</i> (Laporte)	.	Java	.	?
<i>T. vexillarius</i> sp. n.	.	Borneo	.	Magyar Nemzeti Muzeum [Budapest, Hungary.
<i>T. vilis</i> sp. n.	.	Indo-China	.	Rijksmuseum van Natuurlijke Historie, Leiden.
<i>T. vorax</i> Miller	.	Borneo	.	British Museum (N.H.), London.

*List of Species in cruentus Group*

- Tiarodes cruentus* Stål . Philippine Is. . Naturhistoriska Riksmuseet, Stockholm.  
*T. luzonicus* sp. n. . „ . British Museum (N.H.), London.

*Tiarodes jucundus* sp. n.

(Pl. I, fig. 6)

COLOUR. Antennae missing. Head shining black; gula, anteocular narrowly, postocular widely, base laterally, yellow; rostrum missing. Thorax reddish yellow; lateral angles of collar paler; anterior pronotal lobe with 4 obscure piceous spots basally; posterior two-thirds of posterior lobe and all of median depression, piceous; scutellum piceous; foveole with faint reddish suffusion. Hemelytra black; corium with a large, transverse, ovate spot extending to costal margin, yellow. Connexivum black; segment 2 with faint yellow suffusion laterally; segments 3-6 with a large, suboblique transverse spot apically, segment 7 with apex yellow; segments 2-5 of abdomen ventrally reddish yellow, with a piceous spot laterally; segment 5 laterally with suffusion, segments 6-8 yellow; segment 5 with 2 transverse spots mid-ventrally; segment 6 with an arcuate spot, segment 7 with an ovate spot and a median stripe leading to apex, piceous. Tibiae and tarsi black; coxae, trochanters, femora light red; anterior and median femora narrowly apically, posterior femora very broadly apically black.

STRUCTURE. Anteocular with feeble, regular, transverse striae laterally. Median depression on anterior and posterior pronotal lobes wide and deep, that on posterior lobe with somewhat obscure, transverse striae and a deep, transverse foveole anteriorly; transverse sulcus with 1 deep, subcircular foveole and a smaller ovate foveole; posterolateral angles moderately strongly produced, conical, acute, directed inwards somewhat; apex of scutellum narrowly rounded; discal foveole moderately deep, strongly transversely depressed anteriorly. Hemelytra extending to apex of abdomen. Fossula spongiosa half as long as tibiae.

Total length, 31.00 mm.; hemelytra, 18.00 mm.; greatest pronotal width, 9.10 mm.

One ♀ (holotype), Sumatra, Serdang, Tobermeer, Dr. B. Hagen.

*Tiarodes lotus* sp. n.

(Pl. I, fig. 10)

COLOUR. Segments 1 and 2 of antennae piceous; remaining segments missing. Head shining black with faint metallic green lustre; anteocular and postocular laterally, gula and base whitish yellow; neck dorsally almost entirely piceous; basal segment of rostrum piceous; remaining segments testaceous. Thorax yellow; anterior pronotal lobe with faint linear brown suffusion; posterior lobe with brown suffusion medially and laterally posteriorly. Corium and membrane black, the former with a subreniform pale yellow spot extending almost to costal margin. Abdomen reddish yellow; connexival segments with irregular black spots. Tarsi

brown; coxae, trochanters and femora yellow; anterior and median femora with broad black suffusion in apical half; tibiae black.

STRUCTURE. Head smooth; antecular laterally with obscure, widely-spaced, transverse striae. Median depression on anterior and posterior pronotal lobes very deep, wide, short; transverse sulcus with a deep, circular foveole on each side of depression; posterolateral angles of posterior lobe moderately strongly produced, slender, acute, directed backwards; apex of scutellum narrowly rounded; foveole on disc deep with obscure transverse sulci. Hemelytra extending to apex of abdomen. Fossula spongiosa on anterior tibiae about one-half as long, on median tibiae one-third as long as tibiae.

Total length, 21.50 mm.; hemelytra, 14.00 mm.; greatest pronotal width, 6.00 mm. One ♂ (holotype), Sumatra, Solok, 1913, P. O. Stolz.

*Tiarodes nobilis* sp. n.

(Pl. I, fig. 8)

COLOUR. Segments 1 and 2 of antennae dark brown; remaining segments testaceous. Head, segments 1 and 2 of rostrum black; segment 3 of rostrum brown; base of head suffused with brown. Thorax black. Hemelytra black with a yellow discal spot. Abdomen light red; segment 2 ventrally except laterally, black; segments 3-6 basally and apically with transverse piceous suffusion; segment 7 with a large, lunate black spot with margin suffused with brown; genital segments black. Legs light red; tibiae basally and apically, femora apically black; tarsi brown; suffusion on anterior tibiae relatively wider; coxae and trochanters black.

STRUCTURE. Head smooth, shining with feeble transverse striae laterally and on antennophores. Median sulcus on posterior pronotal lobe transversely carinate; posterolateral angles of posterior lobe produced, subacute, directed backwards. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa a little less than half as long as tibiae.

Total length, 29.00 mm.; hemelytra, 17.00 mm.; greatest pronotal width, 8.00 mm. One ♀ (holotype), Ceram, Wallace (A. R.).

*Tiarodes opulentus* sp. n.

(Pl. I, fig. 11)

COLOUR. Antennae missing. Head dorsally black; laterally, ventrolaterally and base pale yellow; rostrum missing. Thorax, except scutellum, light red; scutellum piceous; meso- and metapleura with piceous suffusion. Median depression on posterior pronotal lobe, posterior margin of lobe suffused with piceous. Hemelytra fuscous with a large discal yellow spot, the external margin of which extends to costa. Abdomen dorsally yellow with faint red suffusion; connexival segment 2, most of 3 and 4 black; segment 5 with a large spot, bifurcate on inner margin at base of segment, segment 6 with a smaller spot, segment 7 with a still smaller spot, black; abdomen ventrally yellow with faint red suffusion; connexival segments 2, 3 and 4 (except apex), black; segments 5 and 6 with a large black spot basally;

segments 2 and 3 ventrally black, both with yellow suffusion laterally; segment 3 with a yellow spot mid-ventrally; segment 4 with a large black area enclosing a transverse, elongate yellow spot mid-ventrally and with a wide black stripe joining black area to lateral margin; segments 5 and 6 with an arcuate black spot mid-ventrally and suffusion laterally; segment 7 with a small piceous spot on apical margin medially. Anterior and median tibiae, posterior legs, black; anterior and median femora narrowly black apically; trochanters, median tibiae basally suffused with piceous; coxae light red.

**STRUCTURE.** Head smooth; anteocular laterally coarsely striate; vertex, except medially, feebly transversely striate; medially aciculate, basally medially more coarsely striate; postocular with very obscure, shallow narrow depressions. Anterior pronotal lobe with a narrow, sinuate sulcus subdorsally medially; median depression on lobes posteriorly transversely carinulate; posterior lobe with deep foveoles and longitudinal carinulae anteriorly; posterolateral angles of posterior lobe moderately produced, rounded apically and directed inwards feebly; apex of scutellum broadly rounded apically and with transverse sulci. Hemelytra extending to apex of abdomen. Fossula spongiosa on anterior tibiae a little less than half as long, on median tibiae one-third as long as tibiae.

Total length, 25.00 mm.; hemelytra, 16.00 mm.; greatest pronotal width, 7.50 mm. One ♂ (holotype), Siam (B.M. 65-13).

*Tiarodes ostentans* sp. n.

(Pl. I, fig. 14)

**COLOUR.** Antennae missing. Head black; anteocular laterally, gula, postocular and base yellow; segments 1 and 2 of rostrum piceous; segment 3 brown. Pronotum light red; median depression between lobes, posterior half of posterior lobe of pronotum, piceous; produced part of posterolateral angles reddish; scutellum black; propleura, sterna, light red; mesosternum with an oblong black spot laterally; meso- and metapleura black; acetabula reddish yellow. Abdomen dark yellow; segment 2 ventrally black; segments 3-5 almost entirely suffused with piceous; segment 6 with a black stripe medially on apical margin; connexival segments 2-4 black; segment 4 with a circular yellow spot; segment 5 black in basal half, remainder yellow; segments 6 and 7 yellow. Corium black and fuscous with a large pale yellow discal spot extending almost to costal margin; membrane black. Tibiae and tarsi black; coxae light red; anterior trochanters light red suffused with piceous; median and posterior trochanters piceous; anterior and median femora light red, broadly black apically; median femora suffused with piceous basally; posterior femora black.

**STRUCTURE.** Anteocular laterally distinctly transversely striate; ocellar area very obscurely striate. Anterior pronotal lobe with a distinct arcuate depression subdorsally; median depression between lobes wide, deep, transversely striate; transverse sulcus with a large, circular foveole and a small, circular foveole with external side open; produced portion of posterolateral angles of posterior pronotal lobe thick, conical, subacute; apex of scutellum broadly rounded; discal foveole

with surface strongly declivous ; sides of disc deeply depressed. Hemelytra extending to apex of abdomen. Fossula spongiosa a little less than half the length of tibiae.

Total length, 28.00 mm.; hemelytra, 18.00 mm.; greatest pronotal width, 9.00 mm. One ♂ (holotype), Indo-China, Laos, Vitalis de Salvaza.

*Tiarodes scriptus* sp. n.

(Pl. I, fig. 15)

COLOUR. Segments 1 and 2 of antennae black ; remaining segments missing. Head shining black ; gula, base of head, postocular laterally, stripes on anteocular laterally, dull yellow ; rostrum black. Anterior pronotal lobe, propleura reddish yellow, the former with lateral angles of collar almost entirely, collar and 2 large subtriangular spots coalescing anteriorly, a large subtriangular spot laterally, confluent spots along posterior margin and laterally posteriorly, black ; posterior lobe black with an oblique, elongate yellowish spot anteriorly on each side of median depression ; scutellum black with reddish yellow suffusion at apex of disc ; pleura and sterna reddish yellow ; propleura with black spot at base of acetabular incision. Hemelytra fuscous with an elongate, suffused yellowish spot basally at claval suture and a transverse subtriangular yellowish discal spot, the acute angle directed towards costa. Connexivum black ; segment 3 with a small quadrate spot, segments 4-6 with a transverse, subapical, elongate spot yellow ; segments 2-4 of abdomen ventrally reddish yellow ; segments 5-7 yellow ; pygophore yellow with brown suffusion ; segments 2-5 laterally with a large, irregular spot, segment 4 with 2 spots mid-ventrally, segments 5 and 6 with a transverse spot mid-ventrally, segment 7 with a triangular spot mid-ventrally, black ; connexivum of segment 7 ventrally suffused with yellow. Tarsi and tibiae black ; coxae, trochanters, femora, reddish yellow ; anterior and median femora broadly apically, posterior femora with apical half, black ; basal margins of black areas suffused and reddish yellow areas with somewhat obscure, linear black suffusion.

STRUCTURE. Anteocular laterally striate, the striae more or less parallel. Median depression on both pronotal lobes wide and deep, particularly on posterior lobe ; base of depression on anterior lobe with short, transverse carina ; depression on posterior lobe with a wide, deep foveole anteriorly and shorter transverse sulci posteriorly ; transverse sulcus with a large and a small deep foveole and carinulae laterally ; posterolateral angles strongly produced, triangular, acute ; apex of scutellum narrowly rounded ; disc damaged ; laterally irregularly sulcate. Hemelytra extending very little beyond apex of abdomen. Fossula spongiosa a little more than half as long as tibiae.

Total length, 27.00 mm.; hemelytra, 17.00 mm.; greatest pronotal width, 7.50 mm. One ♂ (holotype), E. Borneo, Sanga Sanga, W. D. Jensen (B.M. 1907-203).

*Tiarodes sulaensis* sp. n.

(Pl. I, fig. 16)

COLOUR. Basal segment of antennae piceous ; remaining segments brown. Head black, narrowly light brown basally ; gula dark yellow ; rostrum piceous. Anterior

pronotal lobe dark yellow or reddish yellow with a black pattern; posterior lobe, propleural epimeron, meso- and metapleura, scutellum shining black; lateral angles of collar suffused with brown; propleural epimeron dark or reddish yellow, suffused with black posteriorly; prosternum yellow; stridulatory furrow black; meso- and metasternum black, the former suffused with yellow anteriorly. Segments 2-4 of abdomen black; segment 3 narrowly ventrolaterally, segment 4 mid-ventrally with reddish yellow suffusion; remaining segments reddish yellow with brownish suffusion mid-ventrally; genital segments suffused with piceous. Corium fuscous somewhat paler laterally and with a small, median whitish spot; membrane dark infumate. Tarsi light brown; anterior and median tibiae, posterior femora and tibiae black; anterior and median femora reddish yellow, narrowly black apically; median femora with brown suffusion basally; coxae and trochanters reddish yellow suffused with piceous.

STRUCTURE. Head smooth; vertex and laterally with transverse striae which are less defined on vertex. Anterior pronotal lobe with a wide, shallow, oblique sulcus with sulci within it; median depression on both lobes very deep and transversely carinulate; subdorsal foveole on transverse sulcus very deep; sulcus also with strong, transverse carinulae; posterolateral angles of posterior lobe somewhat strongly produced, subacute, directed backwards. Apex of scutellum subacute and constricted subapically. Hemelytra extending a little beyond apex of abdomen. Segment 7 of abdomen ventrally with strong transverse sulci; segment 6 with irregular, somewhat feeble sulci. Fossula spongiosa a little less than half as long as tibiae.

Total length, 31.00 mm.; hemelytra, 18.00 mm.; greatest pronotal width, 8.50 mm. One ♀ (holotype), Sula.

*Tiarodes acutangulus* sp. n.

(Pl. 1, fig. 2)

COLOUR. Antennae piceous; apical segments somewhat paler. Head black; anteocular laterally, gula, postocular laterally pale yellow; neck pale yellow, dorsally piceous anteriorly; basal segment of rostrum piceous; remaining segments brown. Thorax dark yellow; anterior pronotal lobe with 2 large bilobate spots anteriorly, a semicircular spot medially laterally, a large bifurcate spot at posterolateral angles, a large elongate spot on each side of median depression and a large spot almost confluent with them, piceous. Segments 2-4 of abdomen dark yellow; remaining segments pale yellow; segment 2 of connexivum with external margin black; segments 3-7 with a large, more or less triangular spot basally black; segments 3-4 also apically narrowly black; apical margin of segment 3 dorsolaterally narrowly black; apical margin of segments 4-7 black; segments 5 and 6 with an undulate piceous spot laterally; segment 7 with piceous suffusion medially. Corium dark yellow, broadly fuscous apically; clavus fuscous, except external margin narrowly yellow; apical half of area between claval suture and *Cu*, base of costa, fuscous. Coxae, trochanters, femora pale yellow; femora narrowly piceous apically; anterior tibiae pale yellow, broadly apically, narrowly basally piceous; median and posterior tibiae piceous; tarsi dark brown.

**STRUCTURE.** Anteocular laterally with a few obscure, transverse striae. Anterior pronotal lobe with a very obscure transverse sulcus subdorsally; median depression on lobes wide and deep with somewhat obscure transverse and oblique sulci within it; produced part of posterolateral angles of posterior lobe very acute; apex of scutellum rounded, subtruncate; foveole on disc deep, subtriangular; sides of disc almost smooth. Hemelytra extending to apex of abdomen. Fossula spongiosa a little more than half as long as tibiae.

Total length, 18.50 mm.; hemelytra, 11.50 mm.; greatest pronotal width, 5.80 mm.

One ♀ (holotype), Sarawak, foot of Mt. Dulit, junction of Rivers Tinjar and Lejok, 10. ix. 1932, B. M. Hobby & A. W. Moore (Oxford Univ. Exped. B.M. 1933-254).

*Tiarodes nemoralis* sp. n.

(Pl. 1, fig. 3)

**COLOUR.** Basal segment of antennae piceous; remaining segments testaceous; segment 2 basally and apically narrowly piceous. Head black with faint metallic green lustre; anteocular laterally, including antennophores, postocular laterally, base of head yellowish; neck very narrowly piceous anteriorly; basal segment of rostrum piceous; remaining segments brown. Thorax dark yellow; pleura and sterna suffused with red; anterior pronotal lobe with a large, subtriangular spot medially laterally, a large angulate spot at posterolateral angles and 2 large spots on posterior margin, dark brown. Corium pale yellow with apex broadly fuscous, an elongate spot on clavus and on anterior part of area between claval suture and *Cu* and a stripe on costa basally, fuscous; membrane fuscous; venation black. Abdomen ventrally pale yellow; segments 2-4 suffused with red; segments 4 and 5 with a brown spot on each side of mid-venter; connexival segments 3-7 with a spot basally, piceous. Legs pale yellow; coxae trochanters and femora with light red suffusion; tibiae with brown suffusion basally and apically, that on median and posterior tibiae covering nearly half of tibiae; tarsi testaceous.

**STRUCTURE.** Anteocular laterally with distinct, widely-spaced transverse striae. Anterior pronotal lobe with a moderately deep subcircular depression subdorsally; median depression on lobes wide and deep; transverse sulcus with 2 large circular foveoles; posterolateral angles of posterior lobe narrowly conical, acute; apex of scutellum narrowly rounded; disc laterally with a few sulci. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa on anterior tibiae a little more than one-third as long, on median tibiae one-third as long as tibia.

Total length, 19.00 mm.; hemelytra, 13.00 mm.; greatest pronotal width, 6.00 mm.

One ♀ (holotype), Malaya, Gunong Angsi, Negri Sembilan, 2000-2790 ft. April 1918 (B.M. 1955-354).

*Tiarodes simplex* sp. n.

(Pl. 4, fig. 20)

**COLOUR.** Segments 1 and 2 of antennae piceous; remaining segments testaceous. Head black; anteocular laterally, gula, yellow; vertex adjacent to antennophores with yellow suffused spot; neck yellow, anteriorly narrowly piceous; basal segment



of rostrum piceous ; remaining segments brown. Thorax yellow ; anterior pronotal lobe anteriorly subdorsally with a securiform spot, sublaterally with a circular spot, laterally with a pyriform spot, a large bilobate spot at posterolateral angles and 2 large circular spots posteriorly piceous. Corium pale yellow ; area between claval suture and *Cu* with brown suffusion ; apex of corium broadly piceous ; membrane black, fuscous basally ; costa basally with faint brown suffusion. Abdomen ventrally yellow ; apical margin of segments 3-7 dorsally narrowly black ; segments 5-7 with a transverse brownish stripe laterally ; connexival segments 3-7 with a wide, quadrate spot basally and apical margin narrowly black. Anterior femora and tibiae, median and posterior femora pale yellow ; tibiae basally and apically, femora apically with brown suffusion ; median and posterior femora black ; tarsi dark brown.

STRUCTURE. Postocular laterally with moderately distinct transverse striae. Anterior pronotal lobe with a small, obscure depression subdorsally ; median depression on anterior and posterior lobes wide and deep and with obscure sulci posteriorly ; transverse sulcus with a deep, circular foveole and a small, parallel-sided foveole and a shallow depression with carinulae within it laterally ; produced portion of posterolateral angles moderately thick, acute ; apex of scutellum rounded ; foveole on disc deep, transverse ; sides of disc with longitudinal sulci. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa half as long as tibiae.

Total length, 21.00 mm.; hemelytra, 14.00 mm.; greatest pronotal width, 6.50 mm. One ♀ (holotype), Borneo, Long Bloee, Mahakkam, 1898, Dr. Nieuwenhuis.

*Tiarodes sumatrensis* sp. n.

(Pl. 4, fig. 18)

COLOUR. Segments 1 and 2 of antennae piceous ; remaining segments missing. Head black ; anteocular laterally, antennophores, gula and postocular laterally pale yellow ; base of head broadly pale yellow ; rostrum brown. Thorax pale reddish yellow ; anterior pronotal lobe with a small spot medially laterally, an angular spot on posterolateral angles and 4 circular spots posteriorly, brown. Corium very pale or whitish yellow ; clavus fuscous except external margins narrowly whitish yellow ; area between claval suture and *Cu* with an elongate fuscous spot ; apex of corium broadly fuscous ; membrane fuscous ; venation greyish. Abdomen ventrally pale yellow ; segments 2-4 and part of 5 ventrally suffused with red ; connexival segments 3-6 with a quadrate spot basally, segment 7 with an irregular spot basally, piceous ; dorsal segments 5-7 with apical margin narrowly black. Legs pale yellow ; coxae, trochanters and femora suffused with light red ; anterior and median tibiae with a broad suffusion apically particularly on inner surface and a narrow suffusion basally, piceous ; posterior tibiae with a narrow suffusion apically and moderately wide suffusion on inner surface basally, piceous ; tarsi testaceous.

STRUCTURE. Anteocular laterally obscurely but more or less regularly transversely striate. Anterior pronotal lobe with a small, distinct, circular depression subdorsally ; median depression between lobes wide and deep with obscure, shallow, transverse and oblique sulci within it ; transverse sulcus with 2 moderately deep circular

foveoles and oblique sulci laterally ; posterolateral angles of posterior lobe triangular, acute ; apex of scutellum rounded ; disc laterally with feeble longitudinal sulci. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa about one-half the length of tibiae.

Total length, 20.50 mm.; hemelytra, 13.50 mm.; greatest pronotal width, 6.10 mm. One ♀ (holotype), Sumatra, ober-Langkat, Deli, 1894, M. V. de S.

*Tiarodes ambulator* sp. n.

(Pl. 2, fig. 16)

COLOUR. Segments 1 and 2 of antennae brown ; remaining segments testaceous. Head black with violaceous lustre ; gula brown ; base of head very narrowly dull yellow ; rostrum testaceous. Thorax, except scutellum, light red ; scutellum piceous with faint violaceous lustre. Abdomen ventrally black with metallic bluish lustre ; segment 2 entirely mid-ventrally and with anterior margin laterally dull red ; segment 3 mid-ventrally dull red ; segments 6 and 7 laterally suffused with yellow ; segment 7 with an angulate yellowish spot mid-ventrally ; connexivum piceous with violaceous lustre ; connexival segment 6 yellow except internal margin narrowly brownish. Corium fuscous, broadly light red basally ; membrane black. Tarsi testaceous ; anterior and median tibiae piceous narrowly suffused with light red apically ; posterior tibiae piceous ; coxae trochanters, femora light red ; anterior and median femora narrowly apically, posterior femora moderately broadly apically black with metallic blue lustre.

STRUCTURE. Anteocular laterally somewhat coarsely striate ; area between ocelli and transverse sulcus transversely striate. Median depression on anterior pronotal lobe narrow, deep, on posterior lobe wide and somewhat shallow ; anterior lobe posteriorly with a subtriangular flattened area on each side of depression ; transverse sulcus without distinct foveoles but with somewhat obscure transverse carinulae ; posterolateral angles of posterior lobe feebly produced, acute ; apex of scutellum narrowly rounded ; disc damaged ; sides of disc very obscurely striate. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa about one-fifth as long as tibiae.

Total length, ♂ 14.00 mm., ♀ 16.00 mm.; hemelytra, ♂ 9.00 mm., ♀ 10.20 mm.; greatest pronotal width, ♂ 4.30 mm., ♀ 5.00 mm.

One ♂ (holotype), Sumatra, N. O. Kust, G. Martin, 1 ♀ (paratype), S. W. Lampongs, Mt. Tanggamoos, Giesting, 600 m., xii. 1934, Lieftinck/Toxopeus.

Paratype in Rijksmuseum van Natuurlijke Historie, Leiden.

*Tiarodes assamensis* sp. n.

(Pl. 2, fig. 4)

COLOUR. Segments 1 and 2 of antennae piceous ; remaining segments missing. Head piceous with faint metallic blue lustre ; gula brown ; base of head narrowly yellow ; rostrum yellow. Thorax, except scutellum, light red ; scutellum piceous. Hemelytra and membrane black, the former broadly light red basally. Connexivum piceous, except segment 6, yellow ; abdomen with segments 2-5 ventrally light red,

narrowly black with metallic blue lustre laterally; segments 6 and 7 yellow, the former suffused with light red medially, the latter piceous apically; pygophore piceous. Tarsi testaceous; tibiae black; anterior tibiae with suffusion apically, median tibiae in apical half, light red; coxae, trochanters and femora light red; femora narrowly black apically.

STRUCTURE. Anteocular more or less regularly transversely striate laterally; postocular with very obscure striae. Anterior pronotal lobe with very obscure striae on collar and a very feeble oblique depression subdorsally; median depression on both lobes wide and deep; transverse sulcus with a deep foveole on each side of depression; posterolateral angles of posterior lobe not produced, rectangular. Apex of scutellum conical. Hemelytra extending a little beyond apex of abdomen. Fossula spongiosa one-quarter the length of tibiae.

Total length, 15.00 mm.; hemelytra, 10.70 mm.; greatest pronotal width, 4.50 mm.

One ♂ (holotype), Assam, Sylhet.

*Tiarodes attrahens* sp. n.

(Pl. 4, fig. 5)

COLOUR. Segments 1 and 2 of antennae brown; segments 3 and 4 testaceous. Head black with faint violaceous lustre; gula dull castaneous; base of head narrowly light brown. Thorax, except scutellum, red; scutellum piceous with faint violaceous lustre. Segments 2-5 of abdomen red; remaining segments piceous with faint violaceous or greenish lustre. Corium light red; greater part of clavus apically and of area between claval suture and *Cu* fuscous suffused with yellow marginally; membrane fuscous. Tarsi testaceous; coxae light red suffused with piceous; trochanters, femora and tibiae piceous; femora somewhat darker apically.

STRUCTURE. Anteocular laterally somewhat coarsely, transversely rugulose; area between ocelli and transverse sulcus with more or less regular transverse striae. Anterior pronotal lobe at base of lateral angles of collar with short, somewhat obscure transverse carinulae; collar sublaterally with diagonal striae; median depression between lobes wide, deep and with a small, median circular foveole; transverse sulcus with a distinct, circular foveole and somewhat irregular transverse and oblique carinulae; posterolateral angles of posterior lobe not produced, rectangular; apex of scutellum rounded; discal foveole ovate with transverse and oblique carinulae within it; sides of disc with transverse sulci. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa about one-quarter as long as tibiae.

Total length, 18.00 mm.; hemelytra, 12.00 mm.; greatest pronotal width, 6.00 mm.

One ♀ (holotype), O. Sumatra, Kananggar, 700 m., v. 1925, Dammerman.

*Tiarodes biroi* sp. n.

(Pl. 4, fig. 1)

COLOUR. Segments 1 and 2 of antennae brown; remaining segments testaceous. Head piceous with faint violaceous lustre; base of head yellow; rostrum piceous.

Thorax and abdomen reddish yellow; segments 6-9 piceous. Hemelytra fuscous; corium narrowly pale yellow basally. Coxae pale reddish yellow; trochanters, femora and tibiae piceous; tarsi brown.

STRUCTURE. Anteocular laterally irregularly striate; postocular in front of ocelli obscurely transversely striate. Collar with short, somewhat obscure longitudinal striae; median depression between lobes somewhat shallow; posterior pronotal lobe anteriorly with obscure, short, longitudinal carinulae; transverse sulcus with 2 shallow foveoles; scutellar spine subacute; foveole on scutellar disc shallow, subcircular. Hemelytra extending just beyond apex of abdomen.

Total length, 10.50 mm.; hemelytra, 7.00 mm.; greatest pronotal width, 3.40 mm.

One ♀ (holotype), 4 ♀ (paratypes), New Guinea, Erina, Astrolabe Bay, Biro, '96.

Two paratypes in British Museum (N.H.), London.

*Tiarodes bradleyi* sp. n.

(Pl. 2, fig. 18)

COLOUR. Antennae and rostrum piceous. Head black with metallic green lustre; base narrowly yellow. Pronotum, propleura, prosternum, light red; meso- and meta-pleura and sterna black with metallic green lustre; metasternum anteriorly with 2 large brownish spots. Abdominal segments 2-6 dorsally dark yellow; segment 6 suffused with piceous; connexival segments 6 and 7, segment 7 black with metallic green lustre; segment 2 with metallic green suffusion laterally; remaining segments black with metallic green lustre. Corium and membrane fuscous. Mesosternum and acetabula suffused with piceous. Tibiae piceous; femora black with metallic green lustre.

STRUCTURE. Head smooth; anteocular laterally vermiculately striate; area between ocelli and transverse sulcus, irregularly striate. Anterior pronotal lobe with a wide, short, deep, subquadrate foveole sub-basally; depression on posterior pronotal lobe moderately deep; transverse sulcus with a deep foveole on each side of depression; posterolateral angles of posterior lobe rounded, broadly angulate; apex of scutellum subacute; disc transversely striate. Hemelytra extending to apex of abdomen. Femora and tibiae with abundant, short, curved, subrecumbent, forwardly directed setae. Fossula spongiosa about one-fifth as long as tibiae.

Total length, 11.00 mm.; hemelytra, 7.00 mm.; greatest pronotal width, 3.50 mm.

One ♀ (holotype), Solomon Islands, Guadalcanal, Honiara, 8-12.ix.1953 (at light), J. D. Bradley (Rennel Island Exped. B.M. 1954-222).

*Tiarodes browni* sp. n.

(Pl. 2, fig. 17)

COLOUR. Antennae piceous. Head and legs black with metallic green and violaceous lustre. Segments 1 and 2 of rostrum piceous; segment 3 brown. Base of head narrowly yellow. Collar, propleura anteriorly, acetabula, prosternum, light red; anterior pronotal lobe piceous with faint violaceous lustre; posterior lobe reddish

yellow; meso- and metapleura black with violaceous lustre; propleural epimeron reddish yellow; scutellum piceous; apex light brown. Corium blackish green; membrane black. Abdomen dorsally light brown, except connexival segments 2-5 light red; connexival segments 6 and 7 black with metallic green lustre; segment 2, except connexivum, segments 6 and 7, connexival segment 7 ventrally black with metallic green lustre; remaining segments light red.

STRUCTURE. Anteocular and postocular between ocelli and transverse sulcus transversely striate; postocular between ocelli and neck with feeble, longitudinal striae. Anterior pronotal lobe with a diagonal sulcus laterally; posterior lobe anteriorly with a feeble carina on each side of depression and short carinulae; posterolateral angles not produced, broadly rounded. Hemelytra extending just beyond apex of abdomen. Femora and tibiae with abundant, short, subrecumbent, forwardly directed setae. Fossula spongiosa about one-fifth as long as tibiae.

Total length, 11.50 mm.; hemelytra, 6.50 mm.; greatest pronotal width, 3.30 mm.

One ♀ (holotype), Solomon Islands, Malaita, Baunani, 6.ix.1954, E. S. Brown (B.M. 1958-79).

*Tiarodes brunneiventris* sp. n.

(Pl. 4, fig. 14)

COLOUR. Segments 1 and 2 of antennae piceous; remaining segments missing. Head black with metallic blue lustre; gula and base of head reddish yellow; segments 1 and 2 of rostrum reddish yellow; apical segment piceous. Thorax light red; posterior pronotal lobe with median brown suffusion; mesopleural epimeron with a piceous spot. Corium light red in basal half; remainder fuscous; base of clavus and part of basal area between claval suture and *Cu*, yellow; membrane blackish infumate. Abdomen dark brown ventrally, with metallic blue lustre particularly laterally; pygophore suffused with testaceous. Coxae, trochanters, femora and tibiae light red, femora apically, tibiae basally narrowly piceous; tarsi brown.

STRUCTURE. Anteocular strongly and finely reticulately rugose; postocular with feeble diagonal and transverse striae. Anterior pronotal lobe anteriorly with short, irregular longitudinal striae and with a shallow, transversely striate sulcus subdorsally medially; median depression on lobes deep; posterior lobe with a large, deep, circular foveole on each side of depression and smaller foveoles in transverse sulcus; posterolateral angles of posterior lobe not produced, broadly angulately rounded; apex of scutellum narrowly rounded; foveole on disc moderately deep and with irregular sulci within it. Hemelytra extending to apex of abdomen. Fossula spongiosa about one-quarter as long as tibiae.

Total length, 20.00 mm.; hemelytra, 11.50 mm.; greatest pronotal width, 6.00 mm.

One ♂ (holotype), Assam.

*Tiarodes cameronicus* sp. n.

(Pl. 2, fig. 23)

COLOUR. Segments 1 and 2 of antennae piceous; remaining segments missing. Head piceous with very faint bluish lustre; gula testaceous; base of head yellow; rostrum pale testaceous. Thorax, except scutellum, light red; scutellum piceous

with faint bluish lustre; apex somewhat pale. Hemelytra fuscous; corium moderately broadly red basally. Abdomen ventrally piceous; segment 6 laterally with a quadrate yellow area; connexivum piceous with blue or violaceous lustre; connexival segment 6 yellow. Tarsi brown; tibiae piceous; anterior and median tibiae with wide reddish brown suffusion apically; coxae, trochanters, femora light red; femora with narrow piceous suffusion with bluish lustre apically.

STRUCTURE. Anteocular and postocular immediately behind eyes moderately distinctly striate; area between ocelli and transverse sulcus very obscurely striate. Anterior pronotal lobe with some very obscure oblique striae at base of collar, mostly laterally and a moderately deep, narrow, oblique sulcus subdorsally; transverse sulcus without distinctly defined foveoles; median depression on lobes wide and deep, but short on posterior lobe; posterolateral angles of posterior lobe not produced, rectangular; apex of scutellum narrowly rounded; discal foveole ovate, moderately deep and with a smooth, elliptical, low, elevation medially. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa about one-quarter as long as tibiae.

Total length, 15.50 mm.; hemelytra, 10.00 mm.; greatest pronotal width, 4.50 mm.

One ♂ (holotype), 1 ♀ (paratype), Malaya, Boh, Cameron Highlands, 24.ix.1940, N. C. E. Miller (B.M. 1947-269).

*Tiarodes celebensis* sp. n.

(Pl. 3, fig. 9)

COLOUR. Segments 1 and 2 of antennae piceous; segments 3 and 4 testaceous. Head black with very faint metallic blue lustre; gula brown; base of head dark yellow; rostrum light brown. Thorax, except scutellum, light red; scutellum piceous; transversely striate area of metapleura suffused with brown. Corium black, moderately broadly light red basally; membrane blackish infumate. Abdomen fuscous or black with faint blue and green metallic lustre; connexivum of segment 6 dorsally with external half ventrally entirely yellow; segment 6 ventrolaterally with an oblong yellow spot. Tarsi brown; anterior tibiae dull red in apical half, remainder piceous; median tibiae dull red suffused with piceous basally; posterior tibiae piceous; coxae, trochanters, femora light red, femora narrowly black apically.

STRUCTURE. Anteocular laterally and area between ocelli and transverse sulcus coarsely striate. Anterior pronotal lobe laterally at base of collar coarsely, obliquely striate; subdorsally with a shallow, oblique sulcus; median depression on lobes moderately wide and deep; transverse sulcus with 2 moderately deep foveoles and short, longitudinal carinulae; posterolateral angles of posterior lobe not produced, acute; apex of scutellum narrowly rounded; discal foveole circular with surface subconvex; disc laterally obscurely transversely striate. Hemelytra extending to apex of abdomen. Fossula spongiosa about one-quarter as long as tibiae.

Total length, 18.00 mm.; hemelytra, 12.00 mm.; greatest pronotal width, 4.50 mm.

One ♀ (holotype), 1 ♀ (paratype), Celebes, Limbotti, July-Sept. (no year), Rosenberg.

Paratype in British Museum (N.H.), London.

*Tiarodes dux* sp. n.

(Pl. 3, fig. 1)

COLOUR. Segments 1 and 2 of antennae piceous; remaining segments testaceous. Head black with metallic blue lustre; gula and a spot behind eyes, reddish; base of head yellow; rostrum testaceous. Thorax, except scutellum, light red; scutellum black; metapleura with transversely striate area piceous. Corium fuscous, moderately broadly light red basally; membrane fuscous. Abdomen piceous; segments 6 and 7, 8, part of 9, pale yellow; segments 6 and 7 mid-ventrally with piceous suffusion; apical margin of segment 5 narrowly suffused with red; connexival segments 5 and 6 dorsally with yellow suffusion. Anterior and median tibiae light red suffused with piceous basally; posterior tibiae piceous; coxae, trochanters, femora light red; femora narrowly black apically.

STRUCTURE. Anteocular irregularly transversely striate laterally; vertex basally with 2 parallel-sided smooth areas basally; area between ocelli and transverse sulcus obscurely striate. Anterior pronotal lobe obscurely, longitudinally and obliquely striate at base of collar; median depression on lobes deep with a transverse, deep foveole medially; transverse sulcus with 2 deep, subcircular foveoles and longitudinal carinulae; posterolateral angles of posterior lobe feebly produced, acute; apex of scutellum acute and strongly transversely sulcate; disc laterally irregularly sulcate. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa about one-quarter as long as tibiae.

Total length, 18.00 mm.; hemelytra, 12.00 mm.; greatest pronotal width, 5.70 mm.

One ♀ (holotype), Burma, Tenasserim (Kirkaldy coll. B.M. 1912-513), 2 ♀ (paratypes), Tavoy.

*Tiarodes dyak* sp. n.

(Pl. 4, fig. 3)

COLOUR. Segments 1 and 2 of antennae brown; segments 3 and 4 testaceous. Head piceous with faint violaceous lustre; gula pale red; base of head, rostrum yellow. Thorax, except scutellum light red; scutellum piceous with violaceous lustre. Corium fuscous, moderately broadly light red basally; membrane dark infumate. Abdomen piceous; connexival segment 3 with a moderately wide spot, segments 4 and 5 with a very narrow, somewhat suffused spot basally, pale yellow; connexival segment 6 pale yellow; connexival segment 7 piceous; segments 2 and 3 mid-ventrally with faint reddish suffusion; segments 6 and 7 with pale yellow suffusion laterally; segment 8 pale yellow. Tarsi brown; tibiae piceous; coxae, trochanters, anterior and median femora light red; posterior femora light red, strongly suffused with piceous with violaceous lustre.

STRUCTURE. Anteocular laterally with moderately distinct, transverse striae; transverse sulcus with obscure, transverse striae. Anterior pronotal lobe with a very narrow sulcus within a shallow depression anteriorly; median depression between lobes somewhat narrow and deep; transverse sulcus with 2 deep foveoles; posterolateral angles hardly at all produced; scutellar foveole distinctly circular,

deep and with anterior two-thirds depressed; apex of scutellum narrowly rounded. Hemelytra extending just beyond apex of abdomen; costal margin of corium distinctly convex in apical two-thirds.

Total length, 14.50 mm.; hemelytra, 9.20 mm.; greatest pronotal width, 4.10 mm. One ♀ (holotype), Borneo, Xantus.

*Tiarodes excellens* sp. n.

(Pl. 2, fig. 2)

COLOUR. Antennae missing. Head black with faint metallic green lustre; gula part of postocular laterally, dull red; base of head, rostrum yellow. Pronotum, propleura coral red; meso- and metapleura piceous; acetabula light red; scutellum dark metallic blue. Corium black, broadly red basally; membrane fuscous. Abdomen piceous ventrally with dark metallic blue suffusion laterally; segments 6 and 7, pygophore yellow; connexival segments 2-5 piceous with dark metallic blue suffusion and a short, transverse yellow spot basally. Tibiae black in basal half, light red in apical half; coxae, trochanters, femora light red; femora narrowly black apically.

STRUCTURE. Anteocular more or less regularly transversely striate laterally; area between ocelli and transverse sulcus somewhat flattened, feebly transversely striate. Anterior pronotal lobe with a short, longitudinal and an oblique stria at base of collar; lobe with a very obscure oblique sulcus subdorsally; median depression on both lobes moderately deep, that on posterior lobe obscurely, transversely striate; posterolateral angles of posterior lobe not produced, rectangular, rounded. Apex of scutellum narrowly rounded apically; foveole on disc deep, with irregular sulci; sides of disc somewhat obscurely striate. Hemelytra extending a little beyond apex of abdomen.

Total length, ♂ 16.50 mm., ♀ 19.00 mm., hemelytra, ♂ 11.00 mm., ♀ 13.00 mm.; greatest pronotal width, ♂ 5.00 mm., ♀ 6.00 mm.

One ♂ (holotype), 1 ♀ (paratype), Siam, Khao Sabap, Chantaboon, 1936, J. Macbeth (B.M. 1937-24).

*Tiarodes flavicans* sp. n.

(Pl. 3, fig. 4)

COLOUR. Segments 1 and 2 of antennae piceous; remaining segments missing. Head piceous with very faint violaceous and greenish lustre; gula and rostrum yellow; base of head narrowly yellow. Thorax, except scutellum, yellow; scutellum piceous. Hemelytra fuscous with faint brownish suffusion basally. Abdomen ventrally dark brown broadly suffused with black with metallic blue lustre; connexival segments 3-5 and 7 with a spot basally, segment 6, pale yellow; segment 6, segment 7 partly, ventrolaterally narrowly yellow. Tarsi brown; tibiae piceous; coxae, trochanters anterior and median femora yellow; femora narrowly piceous with bluish lustre apically; posterior femora brown, darker and with bluish lustre apically.

STRUCTURE. Anteocular laterally coarsely, transversely striate; area between ocelli and transverse sulcus obscurely transversely striate. Anterior pronotal lobe



obliquely striate at base of collar and with a short oblique sulcus subdorsally; median depression on lobes wide and deep, particularly on posterior lobe; transverse sulcus with a large and a small, deep foveole and oblique striae laterally; posterolateral angles of posterior lobe moderately strongly produced, conical; apex of scutellum narrowly rounded; discal foveole moderately deep and with a longitudinal carina. Hemelytra extending very little beyond apex of abdomen. Fossula spongiosa one-quarter as long as tibiae.

Total length, 16.50 mm.; hemelytra, 10.50 mm.; greatest pronotal width, 5.00 mm. One ♀ (holotype), Malacca (? Malaya), (B.M. 65-13).

*Tiarodes gracilis* sp. n.

(Pl. 2, fig. 20)

COLOUR. Segments 1 and 2 of antennae dark brown; remaining segments testaceous. Head piceous with metallic blue suffusion; gula and base yellow; rostrum yellow; segments 2 and 3 suffused with brown. Thorax, except scutellum, light red; scutellum black with bluish lustre. Hemelytra fuscous with faint reddish suffusion basally. Segments 2-5 of abdomen mid-ventrally red; laterally broadly piceous with bluish lustre; segments 6 and 7 yellow; pygophore piceous; connexival segments 2-5 with bluish lustre; segments 3-5 with a subquadrate yellow spot basally; segment 6 yellow; segment 7 piceous. Tarsi brown; tibiae piceous; femora light red; anterior and median femora moderately broadly suffused with piceous for apical two-thirds, darker and with bluish lustre apically.

STRUCTURE. Anteocular coarsely transversely striate laterally; area between ocelli and transverse sulcus obscurely transversely sulcate and with a distinct sulcus between each ocellus and eye. Anterior pronotal lobe with distinct, oblique sulci behind lateral angles of collar and with a moderately deep sulcate depression subdorsally; median depression on lobes moderately deep and with a very narrow median, longitudinal sulcus with a feebly rounded elevation at middle; sides of depression on anterior lobe with a rounded flattened area basally; transverse sulcus distinctly foveolate; posterolateral angles of posterior lobe feebly produced, acute; apex of scutellum narrowly rounded; discal foveole moderately deep and with irregular, transverse sulci. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa about one-fifth as long as tibiae.

Total length, 14.00 mm.; hemelytra, 9.40 mm.; greatest pronotal width, 4.20 mm. One ♂ (holotype), Borneo, H. Donckin.

*Tiarodes hageni* sp. n.

(Pl. 2, fig. 3)

COLOUR. Segments 1 and 2 of antennae piceous; segments 3 and 4 testaceous. Head black; gula light red; base of head yellow; rostrum yellow. Thorax, except scutellum, coral red; scutellum piceous with violaceous lustre. Hemelytra black; corium basally moderately broadly red. Abdomen brown; segments 2 and 3 mid-ventrally suffused with red; segments 6 and 7 yellow suffused with brown mid-

ventrally; pygophore brown; connexival segments 3-5 with bluish lustre and small yellow spot basally; segment 6 yellow. Tarsi brown; tibiae piceous; coxae, trochanters, anterior and median femora light red, femora narrowly black apically; posterior femora light red suffused with brown in apical two-thirds.

STRUCTURE. Anteocular coarsely striate laterally; area between ocelli and transverse sulcus obscurely transversely striate. Anterior pronotal lobe at base of collar, particularly laterally, obliquely striate; lobe with long, somewhat obscure, feebly curved sulcus subdorsally, extending almost to median depression; foveoles on transverse sulcus subcircular, deep; median depression on lobes wide and deep, with a narrow sulcus and a transverse foveole within it; posterolateral angles of posterior lobe feebly produced, acute; apex of scutellum rounded; foveole on disc moderately deep, ovate with a transverse sulcus medially. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa about one-fifth as long as tibiae.

Total length, ♂ 14.00 mm., ♀ 15.00 mm.; hemelytra, ♂ 9.30 mm., ♀ 9.70 mm.; greatest pronotal width, ♂ 4.30 mm., ♀ 4.50 mm.

One ♂ (holotype), 2 ♀ (paratypes), N. O. Sumatra, Tanjong Morawa, Serdang, Dr. B. Hagen.

Paratype in British Museum (N.H.), London.

### *Tiarodes helluo* sp. n.

(Pl. 3, fig. 13)

COLOUR. Segments 1 and 2 of antennae dark brown; segments 3 and 4 testaceous. Head black with faint green lustre; gula, lower area of anteocular laterally, postocular laterally and base of head, rostrum, testaceous. Pronotum and propleura dark yellow; meso- and metapleura and sterna, piceous; scutellum black with bluish lustre; acetabula of meso- and metathorax suffused with dark yellow. Hemelytra black; corium with obscure yellowish suffusion basally. Abdomen ventrally dark brown with metallic bluish suffusion laterally; segments 6 and 7 with connexivum pale yellow. Tarsi brown; tibiae piceous; anterior tibiae with light brown suffusion on outer surface apically; coxae, trochanters, anterior and median femora dark yellow, femora with apex narrowly black with bluish lustre; posterior femora dark yellow, strongly suffused with brown and with apex black with bluish lustre.

STRUCTURE. Anteocular coarsely striate laterally; area between ocelli and transverse sulcus somewhat obscurely vermiculately striate. Collar with obscure oblique sulci; anterior pronotal lobe with a shallow, punctate oblique sulcus subdorsally; median depression on lobes deep, with a very narrow longitudinal sulcus within it; medially, depression deeper and with a short, longitudinal carina; transverse sulcus with a moderately deep subcircular and an elliptical foveole; posterolateral angles of posterior lobe not produced, broadly rounded; apex of scutellum narrowly rounded; discal foveole shallow, ill-defined. Hemelytra extending to apex of abdomen; veins of corium with short, suberect setae. Fossula spongiosa a little more than one-third as long as tibiae.

Total length, 17.00 mm.; hemelytra, 10.60 mm.; greatest pronotal width, 5.20 mm.

One ♀ (holotype), Cochin China, Tayninh, 20.viii.1923, R. Vitalis de Salvaza.

*Tiarodes hilaris* sp. n.

(Pl. 4, fig. 4)

COLOUR. Segments 1 and 2 of antennae piceous; segments 3 and 4 testaceous. Head piceous with violaceous lustre; gula reddish yellow; base of head, rostrum yellow. Thorax, except scutellum, light red; scutellum piceous with violaceous lustre. Hemelytra black; corium moderately broadly dark red basally. Abdomen piceous; connexival segments 3-5 with a transverse, quadrate yellow spot basally; connexival segment 6 yellow; connexival segment 7 piceous; segments 3-5 ventrally with reddish suffusion which is somewhat obscure on segments 4 and 5; segments 6 and 7 yellow; segment 7 with piceous suffusion apically. Tarsi brown; tibiae piceous; coxae, trochanters, anterior and median femora red, broadly piceous with violaceous lustre apically; posterior femora red with apical two-thirds piceous with violaceous lustre.

STRUCTURE. Anteocular somewhat coarsely transversely striate; postocular between transverse sulcus and ocelli with obscure, transverse, oblique and longitudinal striae. Anterior pronotal lobe with an oblique sulcus anteriorly; collar, particularly at middle with distinct, short striae; median depression between lobes deep; transverse sulcus with 1 moderately deep foveole; posterior lobe anteriorly with distinct carinulae and striations; posterolateral angles moderately produced, conical, rounded; foveole on scutellar disc wide, subcircular with transverse sulci within it; apex of scutellum narrowly rounded; sides of disc with short, longitudinal striae. Hemelytra extending just beyond apex of abdomen.

Total length, 15.00 mm.; hemelytra, 9.50 mm.; greatest pronotal width, 4.60 mm. One ♀ (holotype), Borneo, Xantus.

*Tiarodes insulanus* sp. n.

(Pl. 3, fig. 14)

COLOUR. Segments 1 and 2 of antennae dark brown; remaining segments missing. Head black with metallic greenish lustre; base of head suffused with brown; segments 1 and 2 of rostrum yellow; apical segment brown. Thorax metallic blue. Hemelytra fuscous. Abdomen yellow. Tarsi brown; coxae brown; trochanters, femora and tibiae yellow; anterior femora moderately broadly, median and posterior femora narrowly apically, piceous with bluish lustre; tibiae narrowly piceous basally.

STRUCTURE. Anteocular laterally somewhat obscurely striate. Collar with oblique striae; anterior pronotal lobe very obscurely depressed subdorsally; median depression on lobes wide and deep, less deep on posterior lobe; transverse sulcus with 1 moderately large and deep, 1 small foveole and very short transverse carinulae; posterolateral angles very feebly produced, rectangular. Apex of scutellum somewhat broadly rounded; discal foveole deep, subcircular, almost smooth; lateral margins of disc without sulci. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa about one-quarter as long as tibiae.

Total length, 20.00 mm.; hemelytra, 12.10 mm.; greatest pronotal width, 6.00 mm.

One ♀ (holotype), Philippine Islands, Imugan, 4000 ft., Nord Luzon, leg. G. Böttcher (B.M. 1949-474).

*Tiarodes miles* sp. n.

(Pl. 3, fig. 6)

COLOUR. Segments 1 and 2 of antennae dark brown; segments 3 and 4 testaceous. Head and thorax dark metallic blue; head basally suffused with brown; rostrum yellow. Hemelytra fuscous. Abdomen brick red; segment 2 mid-ventrally, segment 7 apically and genital segments suffused with black with metallic blue lustre. Tarsi testaceous; coxae, trochanters, femora and tibiae brick red.

STRUCTURE. Anteocular laterally very obscurely aciculate; area between ocelli and transverse sulcus obscurely transversely striate. Anterior pronotal lobe with some oblique striae at base of collar and a short, deep, oblique sulcus subdorsally; median depression on both lobes wide and deep, that on posterior lobe widening considerably posteriorly; transverse sulcus with a large, deep, semicircular foveole and a very small elliptical foveole; posterolateral angles very feebly produced, broadly rounded; apex of scutellum narrowly rounded; discal foveole deep sub-circular and almost smooth; lateral margins of disc with longitudinal sulci. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa about one-third as long as tibiae.

Total length, 16.00 mm.; hemelytra, 10.70 mm.; greatest pronotal width, 5.00 mm.

One ♀ (holotype), Philippine Islands, Insel Masbate, Aroro, 11.viii.1917, leg. G. Böttcher (B.M. 1949-474).

*Tiarodes mjobergi* sp. n.

(Pl. 2, fig. 8)

COLOUR. Segments 1 and 2 of antennae piceous; remaining segments testaceous. Head black with greenish violaceous lustre; gula reddish yellow; base of head pale yellow; rostrum dark yellow. Thorax, except scutellum, light red; scutellum black with violaceous lustre. Hemelytra fuscous; base of corium and clavus moderately broadly light red. Connexivum black with violaceous lustre; segment 6 and a moderately large, quadrate basal spot on segments 2-5 yellow; abdomen ventrally piceous with violaceous lustre; segments 2 and 3 narrowly mid-ventrally red; segments 4 and 5 mid-ventrally suffused with red; segment 6 laterally with a large spot with a narrow stripe leading from it, yellow. Tibiae and tarsi piceous; coxae, trochanters, femora light red; anterior and median femora narrowly apically, greater part of posterior femora basally piceous with violaceous lustre.

STRUCTURE. Anteocular laterally somewhat obscurely transversely striate; transverse sulcus minutely striate. Anterior pronotal lobe with short, oblique and longitudinal striae particularly near lateral angles of collar; anterior lobe with a very obscure, oblique sulcus anteriorly subdorsally; depression between lobes wide and deep; transverse sulcus with a deep, subovate foveole and a smaller, elliptical foveole on each side of depression; posterior lobe with a short carina adjacent to larger foveole; posterolateral angles conical, short, acute; apex of

scutellum subacute; discal foveole moderately large, subcircular with a transverse carinula within it. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa about one-quarter as long as tibiae.

Total length, 16.00 mm.; hemelytra, 10.30 mm.; greatest pronotal width, 4.80 mm. One ♀ (holotype), Sarawak, Mt. Matang, E. Mjöberg.

*Tiarodes mouhoti* sp. n.

(Pl. 4, fig. 6)

COLOUR. Segments 1 and 2 of antennae piceous; remaining segments missing. Head black with faint metallic blue lustre; gula, lower area of anteocular immediately in front of eyes, postocular and base of head, yellow; rostrum yellow; segments 2 and 3 suffused with brown. Anterior pronotal lobe, propleural episternum, yellow; acetabula, posterior pronotal lobe, propleural epimeron, reddish yellow;<sup>1</sup> meso- and metapleura and sterna piceous; scutellum black with metallic bluish lustre; apex piceous. Corium fuscous, moderately widely reddish yellow basally; membrane dark infumate. Abdomen piceous with metallic blue lustre; segments 6 and 7 and genital segments yellow; segment 7 dorsally apically, segment 8, piceous; connexival segments 3-5 dorsally with a small, suffused yellow spot basally. Tibiae and tarsi piceous; coxae, trochanters yellow with piceous suffusion; anterior and median femora reddish yellow, narrowly black apically; posterior femora brown with piceous suffusion.

STRUCTURE. Anteocular coarsely striate laterally; area between ocelli and transverse sulcus obscurely, vermiculately striate. Anterior pronotal lobe at base of collar strongly, longitudinally and obliquely striate; subdorsally with an obscure oblique sulcus within a shallow depression; median depression on both lobes short, medially very deep; foveoles on transverse sulcus subcircular, deep; posterolateral angles of posterior lobe very feebly produced, rounded; apex of scutellum narrowly rounded; foveole on disc subcircular with regular, transverse sulci; sides of disc with obscure sulci. Hemelytra extending to apex of abdomen. Fossula spongiosa about one-quarter as long as tibiae.

Total length, 17.00 mm.; hemelytra, 11.00 mm.; greatest pronotal width, 5.50 mm. One ♀ (holotype), Cambodia, Mouhot. (B.M. 65-13).

*Tiarodes nebulosus* sp. n.

(Pl. 3, fig. 5)

COLOUR. Segments 1 and 2 of antennae piceous; remaining segments testaceous. Head black with faint violaceous lustre; gula dark yellow; base of head very narrowly yellow; rostrum yellow; apical segment suffused with brown. Thorax, except scutellum, light red; scutellum black with faint violaceous lustre. Hemelytra black; corium with very faint reddish suffusion basally. Connexival segments, except 6, black with metallic blue lustre; segments 3-5 with quadrate yellow spot basally, largest on segment 3; segments 2 and 3 of abdomen ventrally red suffused with black with violaceous lustre laterally; segments 3 and 4 piceous; segments

<sup>1</sup> The actual colour of the pronotum was probably light but has been modified by the action of alcohol.

6 and 7 yellow, piceous mid-ventrally with metallic green lustre. Tarsi light brown ; tibiae piceous ; anterior and median femora light red, broadly black with violaceous lustre apically, the basal margin of black areas suffused ; posterior femora piceous becoming black apically and basally narrowly suffused with red.

STRUCTURE. Anteocular laterally somewhat coarsely transversely striate ; area between ocelli and transverse sulcus obscurely, vermiculately and transversely striate. Collar and base of lateral angles obliquely striate ; anterior lobe with distinct, oblique sulci subdorsally ; lobe posteriorly with a circular flattened area in front of large foveole on transverse sulcus ; median depression on lobes with 2 subcircular, moderately deep foveoles ; posterolateral angles of posterior lobe moderately produced, conical, acute ; apex of scutellum narrowly rounded ; discal foveole moderately deep, ovate with anterior two-thirds depressed. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa about one-quarter as long as tibiae.

Total length, 15.00 mm.; hemelytra, 10.50 mm.; greatest pronotal width, 4.50 mm. One ♀ (holotype), 1 ♀ (paratype), E. Borneo, 50 m. Balikpapan, Mentawai R., II. x. 1950, A. M. R. Wegner, 1 ♀ (paratype), Borneo, no precise locality, Schwaner. Paratype in British Museum (N.H.), London.

*Tiarodes obscuripennis* sp. n.

(Pl. 4, fig. 12)

COLOUR. Segments 1 and 2 of antennae piceous ; remaining segments missing. Head piceous ; gula castaneous ; base of head dull yellow ; rostrum testaceous. Pronotum, propleura red ; meso- and metapleura and sterna piceous ; scutellum black. Hemelytra black ; corium obscurely suffused with dull red basally. Abdomen piceous ; connexival segments 6 and 7 dorsally and ventrally yellow ; segments 6 and 7 ventrolaterally yellow. Tarsi brown ; anterior and median tibiae dull red suffused with piceous basally ; posterior tibiae piceous ; femora red, narrowly black apically.

STRUCTURE. Anteocular laterally obscurely transversely striate. Anterior pronotal lobe with short, obscure striae at base of collar and an oblique straight sulcus subdorsally ; median depression on lobes very deep ; transverse sulcus with 2 deep, subcircular foveoles ; posterolateral angles of posterior lobe feebly produced, rectangular, rounded ; apex of scutellum rounded ; disc depressed but without a distinct foveole ; disc laterally with feeble transverse sulci. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa a little less than one-third as long as tibiae.

Total length, 17.00 mm.; hemelytra, 10.50 mm.; greatest pronotal width, 5.00 mm. One ♀ (holotype), Malaya, Kedah, Gurun, Dec. 1915 (B.M. 1955-354).

*Tiarodes obscuripes* sp. n.

(Pl. 3, fig. 11)

COLOUR. Segments 1 and 2 of antennae piceous ; remaining segments missing. Head piceous with metallic blue lustre ; gula and base yellow ; rostrum yellow.

Thorax, except scutellum, light red; scutellum black with violaceous suffusion. Hemelytra fuscous; corium basally moderately broadly light red. Abdomen piceous; segment 2 mid-ventrally light red; connexival segments 3-5 with a moderately wide, quadrate yellow spot basally; connexival segment 6 yellow; segment 6 ventrolaterally suffused with yellow. Tarsi brown; tibiae piceous; anterior and median femora light red, broadly suffused with piceous apically; posterior femora castaneous with narrow piceous suffusion apically.

STRUCTURE. Anteocular distinctly transversely striate laterally; area between ocelli and transverse sulcus obscurely transversely striate. Anterior pronotal lobe with an oblique, shallow depression subdorsally; median depression on lobes moderately wide and deep and with a narrow longitudinal sulcus and a small median foveole within it; posterolateral angles of posterior lobe feebly produced, subacute; apex of scutellum narrowly rounded; foveole on disc moderately deep, circular. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa about one-quarter as long as tibiae.

Total length, 15.00 mm.; hemelytra, 10.00 mm.; greatest pronotal width, 4.50 mm. One ♀ (holotype), Sarawak (B.M. 65-13).

*Tiarodes propinquus* sp. n.

(Pl. 2, fig. 13)

COLOUR. Segments 1 and 2 of antennae piceous; apical segments testaceous. Head black with violaceous lustre; gula dark yellow; base of head, rostrum, light yellow; apical segment of rostrum suffused with brown. Thorax, except scutellum, yellowish red; scutellum black with a violaceous lustre. Hemelytra fuscous; corium moderately broadly yellowish red basally. Abdomen mid-ventrally, except segments 6 and 7, reddish, broadly black with faint violaceous lustre laterally; segments 6 and 7 yellow with brown suffusion mid-ventrally; segment 7 laterally, pygophore piceous; connexival segments 3-5 black with faint violaceous lustre and a quadrate yellow spot basally. Tarsi brown; tibiae piceous; coxae, trochanters, anterior and median femora light red, femora moderately broadly black apically; posterior femora piceous with base narrowly light red.

STRUCTURE. Anteocular laterally coarsely transversely striate; area between ocelli and transverse sulcus regularly transversely striate. Anterior pronotal lobe with oblique striae behind lateral angles of collar and a very feeble oblique sulcus subdorsally; median depression on lobes wide and deep, the depression on posterior lobe with transverse sulci; transverse sulcus with 2 distinct, deep foveoles; posterolateral angles of posterior lobe feebly produced, conical, acute. Apex of scutellum rounded; discal foveole moderately deep, large, subcircular and with transverse sulci apically. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa about one-quarter as long as tibiae.

Total length, 16.00 mm.; hemelytra, 10.50 mm.; greatest pronotal width, 5.00 mm.

One ♀ (holotype), Borneo, boven Makakkom (Borneo Exped., 1894, Dr. Nieuwenhuis).

*Tiarodes salvazai* sp. n.

(Pl. 3, fig. 2)

COLOUR. Segments 1 and 2 of antennae piceous; remaining segments testaceous. Head piceous with metallic green lustre; gula, lower half of ante- and postocular red; base of head yellow. Thorax, except scutellum, light red; scutellum piceous with metallic blue lustre. Corium and membrane black, the former narrowly light red basally. Segments 1-5 of abdomen ventrally red, narrowly and irregularly piceous with metallic blue lustre laterally; segments 6 and 7 and pygophore yellow; connexival segments 2-5 piceous with metallic blue lustre. Tarsi testaceous; anterior tibiae piceous in basal half, light red in apical half; median tibiae light red with narrow piceous suffusion basally; posterior tibiae piceous; coxae, trochanters, femora light red; femora narrowly black apically.

STRUCTURE. Anteocular more or less regularly transversely striate. Median depression on anterior pronotal lobe short, deep; on posterior lobe short and somewhat shallow; transverse sulcus with a large and small foveole; posterolateral angles of posterior lobe not produced, subrectangular. Apex of scutellum narrowly rounded, declivous. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa about one-quarter as long as tibiae.

Total length, ♂ 16.00 mm., ♀ 17.00 mm.; hemelytra, ♂ 10.50 mm., ♀ 10.00 mm.; greatest pronotal width, ♂ 5.00 mm., ♀ 5.20 mm.

One ♂ (holotype), Indo-China, Tonkin, Hoabinh, June 1917, 1 ♂ (paratype), Laos, Vientiane, 20.x.1919, 1 ♀ (paratype), Laos, Na Hoi, 12.iii.1920, R. V. de Salvaza.

Paratype in British Museum (N.H.), London.

*Tiarodes schultzei* sp. n.

(Pl. 2, fig. 22)

COLOUR. Segments 1 and 2 of antennae piceous; segments 3 and 4 testaceous. Head dark metallic blue, narrowly brown basally; rostrum yellow. Thorax metallic blue. Hemelytra fuscous. Abdomen dark yellow; pygophore black with faint bluish lustre. Legs dark yellow.

STRUCTURE. Anteocular somewhat coarsely transversely striate. Anterior pronotal lobe with obscure striae at base of lateral angles of collar; lobe with distinct, oblique, narrow sulcus subdorsally; median depression on lobes wide and deep and with a median foveole; transverse sulcus with a shallow, subcircular and an ovate foveole; posterolateral angles of posterior lobe moderately produced, conical, acute; apex of scutellum narrowly rounded; discal foveole deep, circular, smooth. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa about one-third as long as tibiae.

Total length, ♂ 14.00 mm., ♀ 17.50 mm.; hemelytra, ♂ 10.00 mm., ♀ 10.00 mm.; greatest pronotal width, ♂ 4.50 mm., ♀ 5.50 mm.

One ♂ (holotype), Philippine Islands, Polillo Island, W. Schultze, 1 ♂ (paratype), Mt. Balusan, 2000 ft. S. Luzon, leg. G. Böttcher, 1 ♀ (paratype), Panay Capiz,



Jamendan, W. Schultze, 1 ♀ (paratype), Montalban, Luzon Rezal, W. Schultze, 1 ♀ (paratype), Nord Luzon, Los Baños, leg. G. Böttcher (B.M. 1949-474).

The holotype differs in a very minor degree from the paratype from Mt. Balusan, but the differences, in my opinion, do not justify the setting up of another new species.

*Tiarodes servus* sp. n.

(Pl. 3, fig. 8)

COLOUR. Segments 1 and 2 of antennae piceous; segments 3 and 4 testaceous. Head black with very faint metallic violaceous suffusion mainly on postocular; gula suffused with brown; base of head yellow; rostrum yellow. Thorax, except scutellum, light red; scutellum black with faint violaceous lustre. Hemelytra fuscous; corium narrowly dark red basally. Segments 2-5 of abdomen ventrally brick red, broadly black with metallic greenish blue lustre laterally; segment 6 yellow suffused with brown mid-ventrally; segment 7 piceous with metallic blue suffusion; connexivum piceous with metallic blue suffusion; connexival segment 6 yellow. Tarsi brown; anterior and median tibiae piceous broadly suffused with dull red apically; posterior tibiae piceous; coxae, trochanters and femora light red; anterior and median femora narrowly, posterior femora moderately broadly black apically.

STRUCTURE. Anteocular laterally transversely striate; postocular with vermiculate striae, more distinct behind ocelli and eyes laterally. Anterior pronotal lobe with distinct oblique striae at base of lateral angles of collar and with a moderately deep, short, oblique, subarcuate sulcus subdorsally; median depression on lobes deep and wide and with a short, transverse, elliptical foveole medially; transverse sulcus with 2 moderately deep foveoles; posterolateral angles of posterior lobe feebly produced, subacute; apex of scutellum rounded; foveole on disc ovate, deep, with a transverse depression near apex; sides of disc transversely sulcate. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa about one-quarter as long as tibiae.

Total length, 17.00 mm.; hemelytra, 10.00 mm.; greatest pronotal width, 4.80 mm.

One ♀ (holotype), Sumatra, Forbes (B.M. 1911-383).

*Tiarodes similis* sp. n.

(Pl. 2, fig. 15)

COLOUR. Segments 1 and 2 of antennae piceous; remaining segments missing. Head black with distinct metallic blue lustre; gula dull red; base of head yellowish; rostrum yellow; apical segment suffused with brown. Thorax, except scutellum, light red; scutellum piceous with bluish lustre. Hemelytra black with dull red suffusion basally; segments 2 and 3 of abdomen ventrally red; remaining segments dark brown; segment 6 laterally and segment 8 with yellow suffusion; connexivum piceous with bluish lustre; connexival segment 6 yellow. Tarsi brown; tibiae piceous; anterior and median tibiae with faint reddish brown suffusion apically; coxae, trochanters, femora light red, femora with piceous suffusion with bluish lustre apically.

STRUCTURE. Antecular laterally moderately coarsely transversely striate; vertex basally with 2 small, smooth, very shallow depressions; area between ocelli and transverse sulcus more or less regularly, but feebly striate. Anterior pronotal lobe with obscure, oblique striae anteriorly and a very shallow, oblique depression subdorsally; median depression on lobes moderately wide and deep; transverse sulcus with 2 not very well defined foveoles; posterolateral angles of posterior lobe subrectangular, not produced; apex of scutellum narrowly rounded; discal foveole moderately deep, ovate and with a transverse carinula subapically. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa about one-quarter as long as tibiae.

Total length, 14.50 mm.; hemelytra, 9.50 mm.; greatest pronotal width, 4.30 mm.

One ♀ (holotype), Malaya, Kuala Lumpur, Feb. 1940, N. C. E. Miller (B.M. 1947-269).

*Tiarodes timorensis* sp. n.

(Pl. 3, fig. 10)

COLOUR. Segments 1 and 2 of antennae piceous; remaining segments missing. Head dull black with metallic blue lustre; gula and base of head brownish; rostrum piceous. Pronotum, propleura light red; scutellum, meso- and metapleura black with violaceous lustre; acetabula light red. Corium and base of clavus narrowly light red; remainder of clavus, membrane fuscous. Abdomen light red; segment 7 ventrally, connexival segment 7 and genital segments piceous. Tibiae and tarsi black; coxae, trochanters, femora light red; femora narrowly black apically.

STRUCTURE. Antecular laterally vermiculately striate; postocular obscurely and irregularly striate and with a narrow sulcus between each ocellus and eye. Depression on anterior and posterior pronotal lobes shallow and with a very narrow median longitudinal sulcus; foveoles on transverse sulcus deep; posterolateral angles of posterior lobe very feebly produced, rounded; scutellum apically rounded and somewhat curved downwards; disc laterally with deep, transverse sulci; foveole on disc moderately deep and with irregular sulci. Hemelytra extending just beyond apex of abdomen; corium with sparse, short, suberect setae. Femora with wide, smooth, shallow, parallel-sided sulcus on lower surface; fossula spongiosa about one-quarter the length of tibiae.

Total length, 19.00 mm.; hemelytra, 12.00 mm.; greatest pronotal width, 5.00 mm.

One ♀ (holotype), Timor, Doherty (B.M. 1911-383).

*Tiarodes varipennis* sp. n.

(Pl. 2, fig. 24)

COLOUR. Segments 1 and 2 of antennae piceous; segments 3 and 4 testaceous. Head piceous with metallic blue lustre; base of head yellow; gula reddish brown; rostrum light red. Thorax, except scutellum, light red; scutellum reddish brown with bluish lustre. Corium light red, broadly suffused with black apically; clavus, except base narrowly, greater part of area between claval suture and *Cu*, base of

anal area of membrane, base of internal cell of membrane, dull yellow; membrane infumate. Segments 2-5 of abdomen ventrally light red with piceous suffusion on segments 3-5 laterally; segment 6, greater part of segment 7 basally yellow; remainder of segment 7, connexivum of segment 7, pygophore, piceous; connexivum of remaining segments red, strongly suffused with piceous. Coxae, trochanters, femora and tibiae light red; tarsi testaceous.

STRUCTURE. Anteocular moderately coarsely transversely striate; postocular regularly striate between ocelli and transverse sulcus. Anterior pronotal lobe with deep, short, arcuate sulci immediately behind collar laterally and a subarcuate, moderately deep sulcus subdorsally; median sulcus on both lobes wide and deep, extending for about two-thirds of length of lobes; foveoles on transverse sulcus deep; posterolateral angles of posterior lobe not produced, rectangular, rounded; apex of scutellum narrowly rounded; foveole on disc deep, subtriangular, almost smooth. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa one-fifth the length of tibiae.

Total length, 13.50 mm.; hemelytra, 9.00 mm.; greatest pronotal width, 4.00 mm. One ♂ (holotype), Sumatra, Sibolangit, Lörtling.

*Tiarodes vexillarius* sp. n.

(Pl. 4, fig. 2)

COLOUR. Segments 1 and 2 of antennae piceous; segments 3 and 4 testaceous. Head piceous with faint metallic green lustre; gula, base of head, rostrum, yellow. Thorax, except scutellum, light red; scutellum piceous with violaceous lustre. Corium black with external area fuscous and base moderately broadly reddish yellow. Abdomen piceous; connexival segments 3, 4 and 5 with a moderately large, quadrate spot basally pale yellow; connexival segment 6 pale yellow with inner margin suffused with piceous; connexival segment 7 piceous; segments 2 and 3 of abdomen ventrally almost entirely suffused with red; segment 6 with a triangular spot laterally, segment 7 with faint suffusion, pale yellow. Tarsi brown; tibiae piceous; coxae, trochanters, anterior and median femora light red, moderately broadly piceous with faint bluish or greenish lustre apically; posterior femora light red broadly suffused with piceous with bluish lustre apically.

STRUCTURE. Anteocular laterally somewhat coarsely, regularly transversely striate; transverse sulcus with very short, longitudinal striae; area between sulcus and ocelli obscurely striate; postocular from ocelli to eyes laterally with a narrow sulcus. Anterior pronotal lobe with a moderately deep, oblique sulcus and depression anteriorly; median depression between lobes deep and with a somewhat obscure median foveole; transverse sulcus with 1 large and 1 small foveole; posterolateral angles moderately produced, subacute; apex of scutellum narrowly rounded; scutellar foveole broad, oval. Hemelytra extending to apex of abdomen.

Total length 16.00 mm.; hemelytra, 10.00 mm.; greatest pronotal width, 4.90 mm. One ♀ (holotype), 1 ♀ (paratype), Borneo, Xantus.

Paratype in British Museum (N.H.), London.

*Tiarodes vilis* sp. n.

(Pl. 3, fig. 16)

COLOUR. Segments 1 and 2 of antennae piceous; segments 3 and 4 testaceous. Head black with a metallic green lustre; gula, part of lower area of anteocular, postocular, reddish yellow; base of head yellow; rostrum testaceous. Pronotum, propleura, light red; meso- and metapleura and sterna piceous with violaceous lustre; acetabula light red; scutellum piceous or black with violaceous lustre. Hemelytra fuscous; base of corium moderately broadly dull red. Abdomen ventrally castaneous, broadly suffused with piceous laterally; segments 6 and 7 and pygophore yellow; connexivum black with very faint metallic green lustre; segments 3-5 with a quadrate yellow spot basally. Tarsi brown; tibiae piceous; anterior and median tibiae suffused with red apically; coxae, trochanters and femora light red; anterior and median femora narrowly apically, posterior femora broadly apically suffused with black with a metallic green lustre.

STRUCTURE. Anteocular somewhat coarsely transversely striate laterally; area between ocelli and transverse sulcus obscurely transversely striate. Anterior pronotal lobe with oblique striae, particularly laterally at base of collar; lobe with a very obscure, oblique, narrow sulcus subdorsally; median depression on lobes wide and deep and with a transverse median foveole; transverse sulcus with 2 deep, subcircular foveoles; posterolateral angles of posterior lobe very feebly produced, acute; apex of scutellum narrowly rounded; foveole on disc moderately deep, with a transverse sulcus. Hemelytra extending just beyond apex of abdomen. Fossula spongiosa about one-quarter as long as tibiae.

Total length, 16.00 mm.; hemelytra, 11.00 mm.; greatest pronotal width, 5.00 mm.

One ♂ (holotype), Indo-China, Luang Prabang, Nuong You, 29.xi.1918, R. V. de Salvaza.

*Tiarodes luzonicus* sp. n.

(Pl. 4, fig. 16)

COLOUR. Basal segment and segments 3 and 4 of antennae testaceous; segment 2 brown. Head, pronotum, scutellum, pleura, prosternum, scarlet; rostrum reddish yellow; meso- and metapleura and sterna piceous; mesosternal epimeron and acetabula, metapleural acetabula reddish; mesosternum suffused with red anteriorly. Hemelytra black; corium with base narrowly suffused with crimson and a little more than half apically crimson. Abdomen with segments 2-5 crimson; remaining segments black. Tarsi reddish yellow; coxae, trochanters, femora and tibiae light red.

STRUCTURE. Anteocular laterally smooth with obscure striae on upper margin and more distinct, vermiculate striae on lower margins laterally. Anterior pronotal lobe very obscurely striate anteriorly and with a moderately distinct, short, oblique sulcus subdorsally; median depression between lobes moderately wide and deep, becoming shallower on posterior lobe, with a very narrow median, longitudinal sulcus and a short, transverse, wider sulcus medially; transverse sulcus between

lobes with a large, subcircular foveole, a much smaller, ovate foveole and a short, shallow, oblique depression; posterolateral angles of posterior lobe short, conical, acute, directed backwards. Hemelytra extending a little beyond apex of abdomen. Fossula spongiosa about one-quarter as long as tibia.

Total length, 15.50 mm.; hemelytra, 10.50 mm.; greatest pronotal width, 4.50 mm.

One ♂ (holotype), 2 ♂ (paratypes), Philippine Islands, Balbulan, N. Luzon, 4000 ft., 1 ♂ (paratype), Imugan, N. Luzon, 4000 ft., leg. G. Böttcher (B.M. 1949-474).

One paratype in Naturhistoriska Riksmuseet, Stockholm.

This new species does not differ very greatly from *Tiarodes cruentus* Stål and it was with some hesitation that I decided to consider it a distinct species. The principal differences are, the relatively longer basal and second antennal segments, the former extending to the apex of the head, the relatively longer head, much thicker lateral angles of collar, less deep transverse sulcus on head and larger ocelli, larger foveoles on transverse sulcus. The coloration is different in that the hemelytra are black, not fuscous and the base of the corium is very narrowly suffused with red.

#### PIRATINAE

#### The genus *CATAMIARUS*<sup>1</sup> Amyot & Serville

The genus *Catamiarus* was established by Amyot & Serville (1843, *Hist. nat. Ins. Hémipt.*, p. 323) for the species *brevipennis* which had been assigned to the genus *Pirates* (*Peirates*) by Serville (1831, *Ann. scien. nat.*, p. 3).

The generic diagnosis and description of the species *brevipennis* given by Amyot & Serville (loc. cit.), are not adequate. Distant (1904, *Fauna Brit. India, Rhyn.* 2: 302-303) also gives a description and figures of *C. brevipennis*. Since neither of these is satisfactory I redescribe and figure the species.

In 1877, Distant (*Entom. Month. Mag.* 14: 134) described a new species—*nyassae*—which he placed in *Catamiarus*. Since this was incorrect and there is no other known genus appropriate for its reception, I propose a new genus—*Pteromalestes*.<sup>2</sup>

Nothing apparently is known about the habits of *C. brevipennis*. A reference to *Pteromalestes nyassae* (under *Catamiarus*) is given in Notes on the Biology of the Reduviidae of Southern Rhodesia (Miller, 1953, *Trans. zool. Soc. Lond.* 28, pt. VI: 590-591).

#### *Catamiarus* Amyot & Serville

Basal segment of antennae shorter than anteocular; antennophores nearer to eyes than to apex of head; anteocular longer than postocular; transverse sulcus arcuate; vertex with a short, median, longitudinal sulcus; ocelli relatively large, widely separated; interocellar area sulcate, basal segment of rostrum shorter than segment 2, somewhat compressed laterally. Anterior lobe of pronotum longer than posterior lobe; lateral angles of collar produced; lobe abundantly tuberculate; posterior lobe strongly rugose, tuberculate; propleura tuberculate; meso- and meta-

<sup>1</sup> κατά = very, μαρος = bad.

<sup>2</sup> πτερόμα = feathered, ληότης = thief.

pleura granulose ; scutellum as wide as long, produced apically ; hemelytra variable in length. Fossula spongiosa on anterior and median tibiae ; coxae tuberculate anteriorly ; femora with low, setigerous tubercles on lower surface.

*Catamiarus brevipennis* (Serv.)

(Text-figs. 28-35)

COLOUR. Basal segment of antennae piceous ; remaining segments brown. Head and thorax black ; abdomen and legs piceous. Corium fuscous with a large yellow discal circular spot ; membrane yellow in basal half, fuscous in remainder ; anal margin with a very narrow, yellow stripe.

STRUCTURE. Basal segment of antennae feebly curved, about two-thirds as long as segment 2. Ocellar interspace one and a third wider than an ocellus. Tubercles on anterior pronotal lobe of various sizes, mostly subcircular and ovate, flattened. Scutellar spine horizontal, rounded apically. Fossula spongiosa on anterior and median tibiae half as long as tibia.

Total length, ♂ 20-24.00 mm., ♀ 27.00 mm.; hemelytra, ♂ 6.50-10.50 mm., ♀ 10.20-10.50 mm.; greatest pronotal width, ♂ 8.00 mm., ♀ 8.00 mm.

S. India, 1 ♂, 1 ♀, Madras, Major Sale, 1 ♂, Madras (B.M. 1911-383), 1 ♂, Madras, W. Elliott, 1 ♂, Cutch (B.M. 1911-383), 2 ♂, Hardwar (B.M. 1911-383), 1 ♀, Kachli, 1 ♂, 1 ♀, Dohnavur, Tinevelly dist. 350 ft., 30.x.1938, 1.x.1938 (B.M. Colombo Mus. Exped. Sept-Oct. 1938), 1 ♀, Kolpatti, Tinevelly, 21.x.1913 (B.M. 1930-599).

Ovum (text-fig. 36). Subampulliform. Chorion glabrous with filaments curved inwards apically on apical margin ; operculum (text-figs. 37-38) concave with a cylindrical elevation constricted medially on upper surface ; margin with filaments curving inwards apically. Chorion apparently dark yellow ; filaments and operculum whitish, 3.50 mm. (dissected).

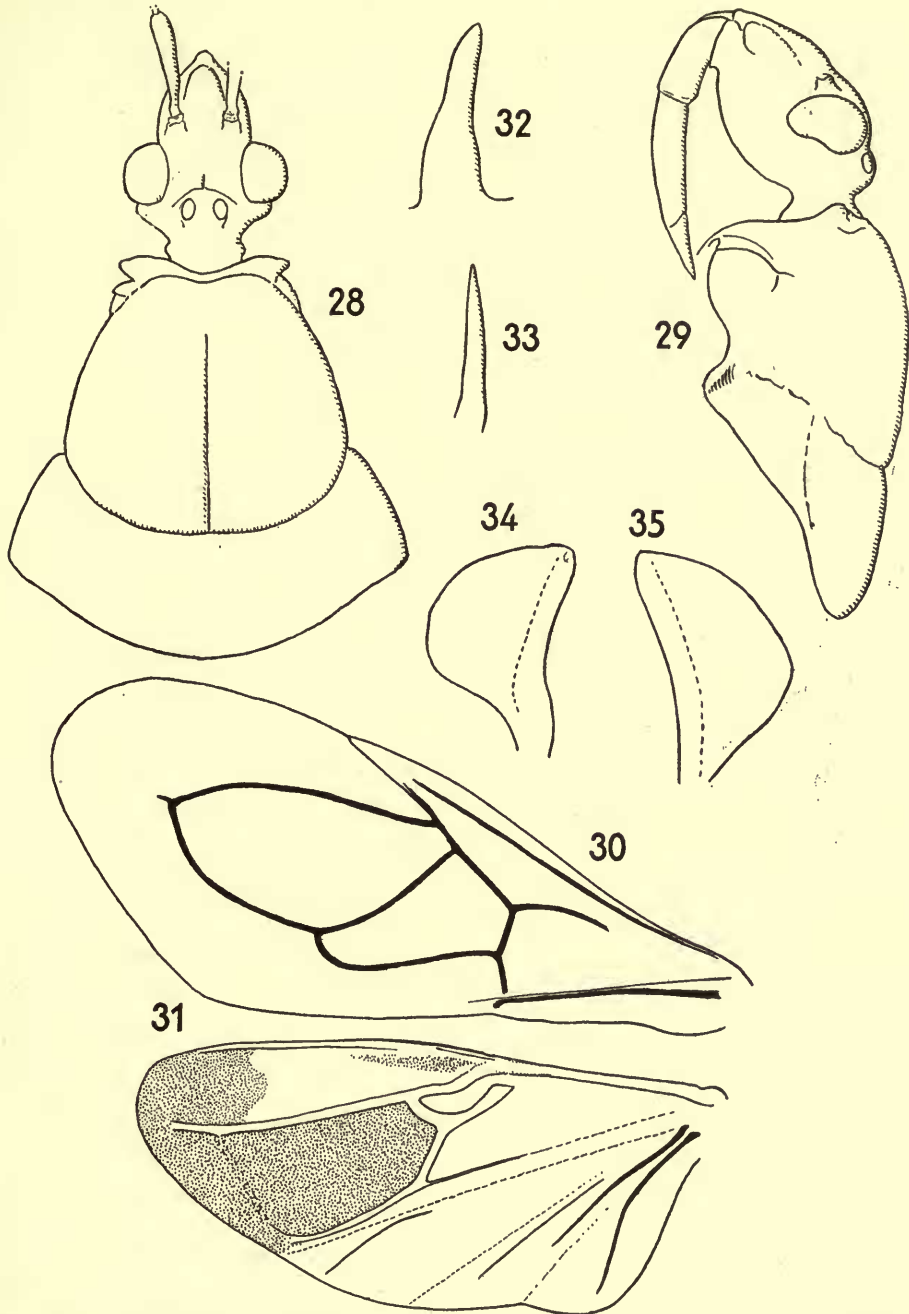
*Fourth Instar Neanide* (Text-fig. 39)

COLOUR. Head and thorax black. Antennae and legs piceous. Intersegmental areas between nota and pleura, segment 1 of abdomen, testaceous ; connexival segments dorsally testaceous or yellowish, narrowly shining black apically and laterally ; ventrally broadly shining black apically ; segments 2-7 of abdomen dorsally fuscous with 2 small shining black depressions on each segment ; segment 8 shining black, laterally testaceous infumate ; segment 9 shining black ; abdomen ventrally testaceous infumate with a shining black, shallow depression adjacent to spiracles. Mesosternum black with a wide, median whitish stripe ; metasternum almost entirely testaceous.

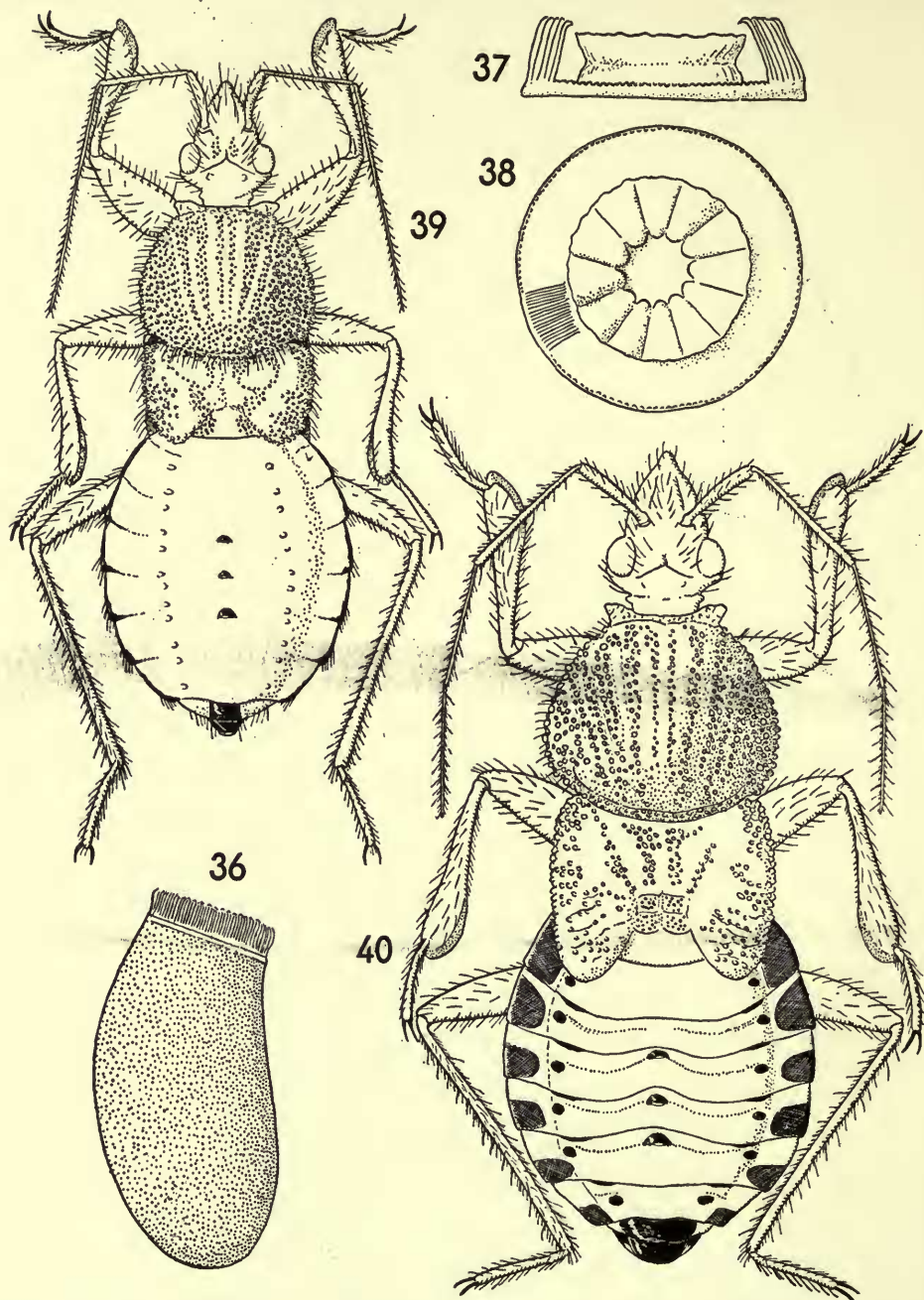
STRUCTURE. Vertex with a few shining granules. Stridulatory furrow and fossula spongiosa developed ; ostioles of dorsal abdominal glands at base of segments 4, 5 and 6. Anterior coxae anteriorly and lower inner surface of anterior femora with low, setigerous tubercles. Rudimentary hemelytra extending just beyond base of first abdominal segment.

Total length, 15.00 mm.

S. India, Bangalore (B.M. 1900-63).



FIGS. 28-35. *Catamiarus brevipennis* (Serville). (28) Head and pronotum, dorsal view. (29) *Idem*, lateral view. (30) Hemelytron. (31) Metathoracic wing. (32) Apical process of pygophore, terminal view. (33) *Idem*, lateral view. (34) Right harpago. (35) Left harpago.



FIGS. 36-40. *Catamiarus brevipennis* (Serville). (36) Ovum. (37) Operculum, lateral view (some filamentous processes removed). (38) *Idem*, lateral view. (39) Fourth instar neanide. (40) Fifth instar neanide.



*Fifth Instar Neanide* (Text-fig. 40)

COLOUR. Similar to fourth instar. Differs in having the thorax and rudimentary hemelytra dark brown, the tubercles black, the metanotum entirely black and granular, the abdomen ventrally testaceous with a broad, lateral infumate suffusion, segments 7 and 8 with a transverse, smooth, shining brown area, segments 1 and 2 dorsally and connexival segments pale yellow, connexival segments with apical half dark brown and with a dense clothing of pale yellow, recumbent setae.

STRUCTURE. The principal differences from the fourth instar neanide are, the tubercles on the pronotum are relatively fewer and more widely spaced and the rudimentary hemelytra extend to the middle of the second abdominal segment.

Total length, 20.00 mm.

S. India, Mysore, H. K. Slater (B.M. 1901-182-), S. India, Bangalore (B.M. 1903-63).

*Catamiarus championi* sp. n.

(Text-figs. 41-48)

COLOUR. Antennae missing. Head, body and legs black; harpagones piceous. Corium black; area between claval suture and *Cu* with a large, pale yellow spot with marginal fuscous suffusion; membrane fuscous, becoming dark infumate apically and with a wide, transverse stripe and a narrow stripe on anal margin, pale yellow.

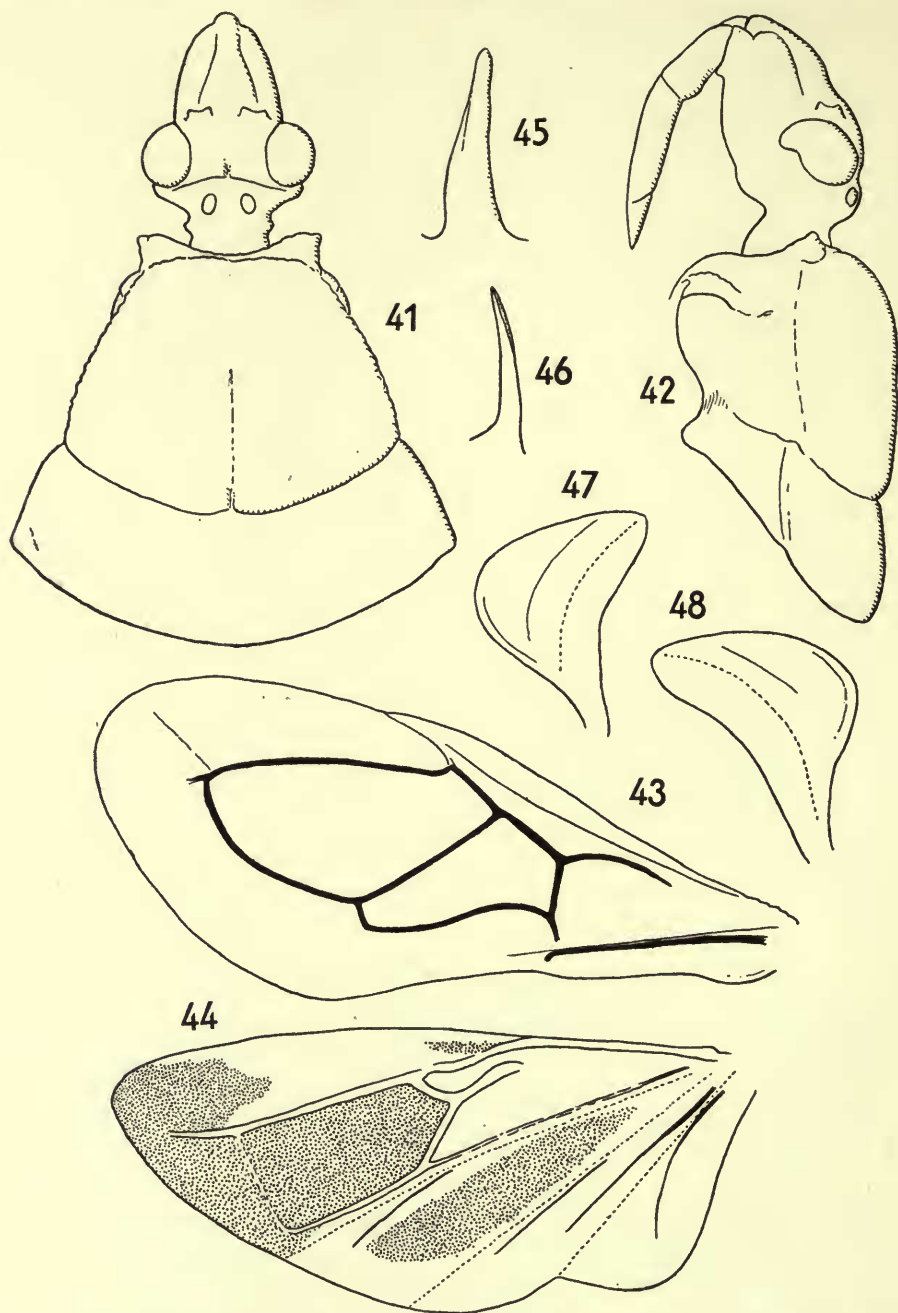
STRUCTURE. Closely resembles *Catamiarus brevipennis*, but differs in the shape of the anterior pronotal lobe which, posteriorly, is relatively wider, in the shape of the venation of the membrane and in the shape of the harpagones and of the apical process of the pygophore. The yellow spot and transverse stripe on the membrane are paler. The hemelytra extend to the apex of the abdomen and the humeral angles are rectangular with the angle rounded.

Total length, 21.50 mm.; hemelytra, 13.00 mm.; greatest pronotal width, 7.50 mm.

One ♂ (holotype), India, Haldwani dist. Kumaon, H. G. Champion (B.M. 1927-409).

**PTEROMALESTES** gen. nov.

Basal segment of antennae shorter than anteocular. Head shorter than pronotum; anteocular longer than postocular, the latter abruptly narrowed to neck; antenno-phores nearer to eyes than to apex of head; transverse sulcus angulate; vertex medially, longitudinally sulcate basally; ocelli moderately widely separated, not elevated; basal segment of rostrum shorter than segment 2 and somewhat laterally compressed. Anterior pronotal lobe laterally carinate, longer than posterior lobe, with a median, longitudinal sulcus for three-quarters of basal length, with obsolescent, flattened carinae and some punctures between carinae; lateral angles of collar rounded; posterior lobe coarsely rugose; scutellum as long as wide with apex produced; prosternum acutely produced posteriorly; propleura smooth; propleural acetabula, meso- and metapleura finely shagreened; mesosternum with a median, longitudinal carina. Abdomen smooth, feebly striate ventrolaterally. Hemelytra not extending to apex of abdomen; base of internal cell of membrane wider than



FIGS. 41-48. *Catamiarus championi* sp. n. (41) Head and pronotum, dorsal view. (42) *Idem*, lateral view. (43) Hemelytron. (44) Metathoracic wing. (45) Apical process of pygophore, terminal view. (46) *Idem*, lateral view. (47) Right harpago. (48) Left harpago.

base of external cell ; internal cell with veins parallel and a little more than half as long as external cell. Anterior coxae long, flattened on outer surface ; anterior femora somewhat incrassate ; fossula spongiosa on anterior and median tibiae. Head, anterior lobe of pronotum, sterna, pleura, corium abdomen ventrally, connexival segments and segment 8 dorsally, legs, except outer surface of anterior coxae with adpressed, silvery, sericeous setae and suberect simple setae ; posterior pronotal lobe, scutellum with abundant, somewhat coarse suberect setae.

Type species, *Pteromalestes nyassae* (Distant). Text-figs. 49-56.

### *Pteromalestes nyassae* (Distant)

COLOUR. Piceous. Posterior pronotal lobe castaneous. Basal segment of antennae piceous ; remaining segments reddish brown. Hemelytra fuscous, basally suffused with castaneous ; membrane dark infumate.

STRUCTURE. Basal antennal segment somewhat curved a little more than half as long as segment 2. Ocellar interspace equal to space between an ocellus and an eye. Scutellar spine horizontal, thick, rounded apically. Hemelytra extending to apex of eighth abdominal segment. Fossula spongiosa on anterior tibiae more than half as long, on median tibiae half as long as tibia.

Total length, ♂ 14.00 mm., ♀ 18.00 mm.; hemelytra, ♂ 10.00 mm., ♀ 11.50 mm.; greatest pronotal width, ♂ 4.50 mm., ♀ 5.00 mm.

One ♀ (holotype), Nyasaland (no precise locality), Symons (B.M. 1911-383), 1 ♂, Uganda, plains NE. of Lake Edward, 3200 ft., 15-16.x.1911, S. A. Neave (B.M. 1912-193), 1 ♂, Kenya, Kisumu, i.1919, T. J. Anderson (B.M. 1921-50), 1 ♀, S. Rhodesia, Odzi dist. 11.ii.1949, N. C. E. Miller.

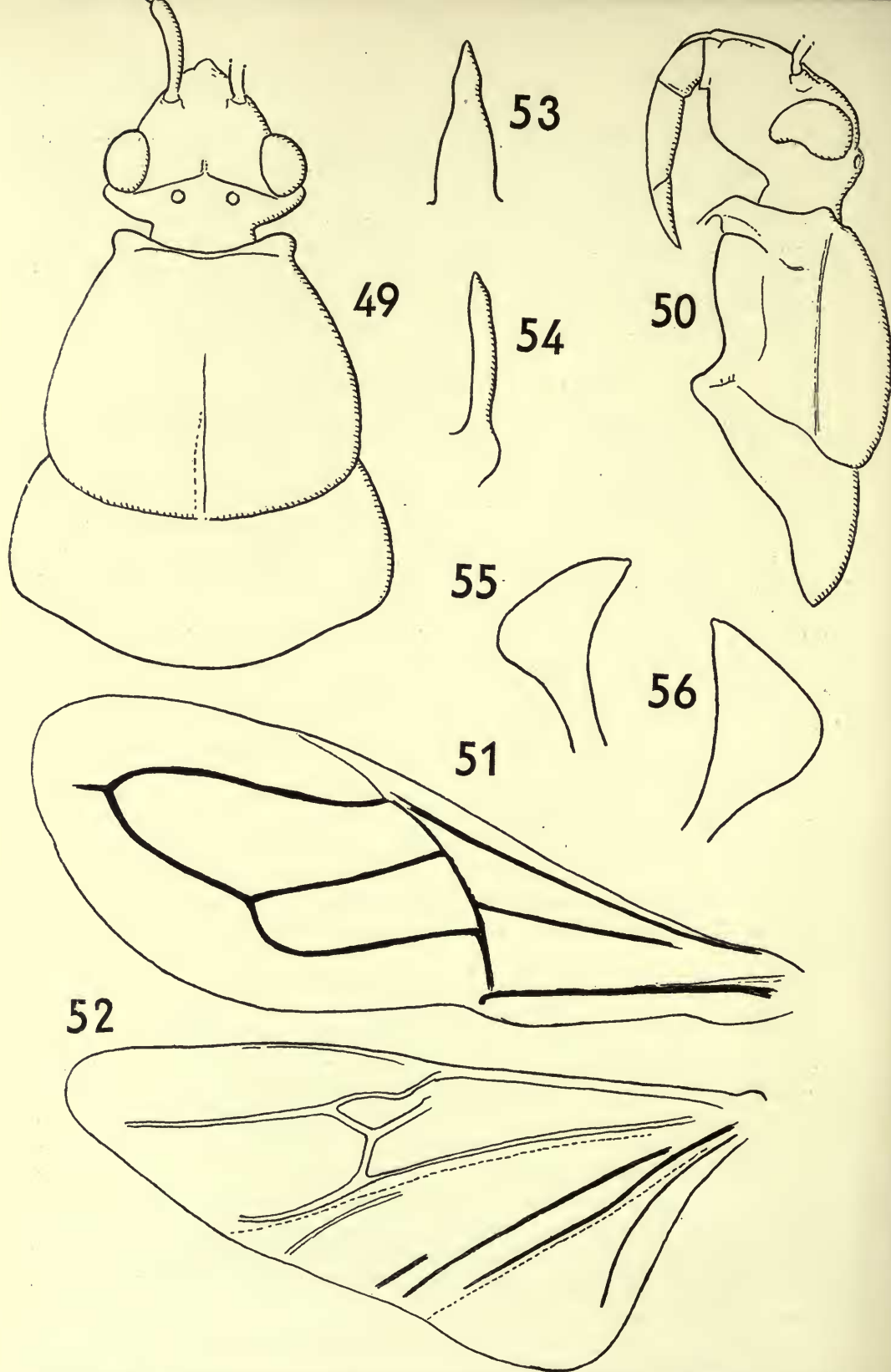
*Pteromalestes* differs from *Catamiarus* in having abundant adpressed pubescence on head, body and legs, the anterior pronotal lobe obscurely carinate and punctate, not tuberculate, the base of the internal cell of the membrane subequal in width and not more than twice as wide as base of internal cell. It differs also in the somewhat narrow habitus in the relatively longer fossula spongiosa on the anterior tibiae and in not having setigerous tubercles on the lower surface of the anterior femora.

### Subfamily ECTRICHOIDIINAE

### *COLASTOCORIS* gen. nov.<sup>1</sup>

SIZE. Small. Antennae with 6 segments ; basal segment as long as head ; segment 2 subequal in length to basal segment. Head shorter than pronotum ; vertex wider than an eye ; ocelli moderately large, elevated, not very widely separated ; transverse sulcus behind eyes ; basal segment of rostrum shorter than segment 2. Anterior pronotal lobe shorter than posterior lobe, transverse, medially longitudinally sulcate throughout ; lateral angles of collar not produced ; posterior lobe medially and laterally sulcate, the sulci foveolate ; transverse sulcus foveolate ; anterior margin of mesopleura carinate and foveolate ; scutellum with 2 widely separated apical spines ; mesosternum medially longitudinally sulcate ; metasternum broadly,

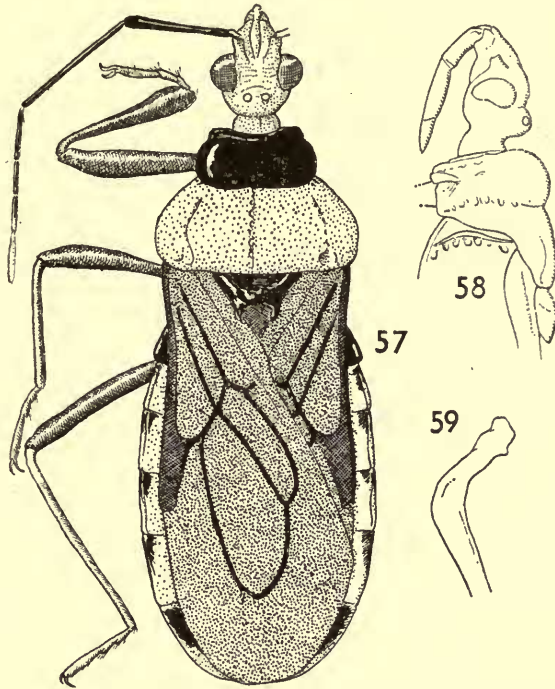
<sup>1</sup> *κολαστήρις* = a chastiser, *κορίς* = a bug.



FIGS. 49-56. *Pteromalestes nyassae* (Distant), gen. nov. (49) Head and pronotum, dorsal view. (50) *Idem*, lateral view. (51) Hemelytron. (52) Metathoracic wing. (53) Apical process of pygophore, terminal view. (54) *Idem*, lateral view. (55) Right harpago. (56) Left harpago.

shallowly depressed. Hemelytra extending to apex of abdomen; costal area of corium only coriaceous. Abdomen with connexival segments 2-4 and mid-ventrally longitudinally sulcate; all segments intersegmentally carinulate. Anterior femora moderately incrassate; anterior tibiae moderately incrassate apically; anterior and median tibiae with a fossula spongiosa.

Type species, *Colastocoris laetus* sp. n. Text-figs. 57-59.



FIGS. 57-59. *Colastocoris laetus* gen. nov., sp. n. (57) Whole insect, dorsal view. (58) Head, pronotum, scutellum and mesopleuron, lateral view. (59) harpago.

### *Colastocoris laetus* sp. n.

**COLOUR.** Segments 1-5 of antennae piceous; segment 5 apically, segment 6, pale yellow. Head and rostrum light brown. Anterior pronotal lobe, pleura, except propleural epimeron, meso- and metapleura and sterna, scutellum, piceous; posterior pronotal lobe, propleural epimeron, light red. Hemelytra fuscous; non-coriaceous areas of corium infumate. Abdomen dark yellow; connexival segment 2 black; other connexival segments with suffused piceous spot basally; ventrolaterally with suffusion, greater part of segment 7, pygophore, piceous. Legs brown; femora somewhat paler basally; posterior tibiae with a pale testaceous annulation basally.

**STRUCTURE.** Antennae with moderately long setae. Vertex about twice as wide as an eye; ocellar interspace a little wider than an ocellus. Median sulcus on anterior pronotal lobe feeble; disc of scutellum deeply excavate. Fossula spongiosa very short.

Total length, 8.60 mm.; hemelytra, 5.40 mm.; greatest pronotal width, 2.50 mm.

One ♂ (holotype), Solomon Islands, Bougainville, 10.vii.1922, E. A. Armytage (B.M. 1947-284), 1 ♂, Kieta, 9.x.1937, J. L. Froggatt (B.M. 1948-548), 1 ♂, Shortland Islands, Lofung, 25.x.1936, R. A. Lever.

Allied possibly to *Caloundranius* Miller, 1957, *Bull. Brit. Mus.* 5, 2: 65-66, from which it differs in the somewhat less robust habitus, relatively narrower head, less widely separated scutellar spines, relatively wider base of external membranal cell and in structure of sterna.

### Subfamily APIOMERINAE

The subfamily Apiomerinae, established by Stål in 1859, contains, as constituted at present, fifteen genera, eleven of which are distributed in the Neotropical Region, one in the Nearctic Region and three in the Ethiopian Region. They appear to possess one characteristic in common, namely the faculty of utilizing exudations or resins from various trees to assist in the capture of prey. They smear the anterior tibiae with the resin in which small insects, if they come into contact with it, become entangled. It has not been fully established if this faculty is possessed by all genera.

Very little is known about the habitats of the Apiomerinae, but, apparently those inhabiting the Neotropical Region and Nearctic Region frequent mainly foliage and those found in the Ethiopian Region live among leaf-debris or under the bark of dead trees.

Morphologically some similarities exist. For example, representatives of the Neotropical genera have the apex of the anterior tibiae sulcate, the sulcus receiving the tarsus when not in use. The tarsus, in this case, is reduced in size. The median tibiae in some genera are also sulcate, but the tarsi are not noticeably reduced.

A striking feature in certain species of *Apiomerus* is the foliaceous expansion which arises from each side of the apical margin of the eighth abdominal segment in females.

In one of the Ethiopian genera (*Cleontes*), the anterior tarsi are absent. In the other genera (*Diaspidius*, *Rodhainiella*), they are reduced in size and when not in use, lie in a sulcus on the tibia.

There are, however, significant differences in morphology between the Neotropical and Ethiopian genera. They may be summarized as follows:

Neotropical genera	Ethiopian genera
Ocelli widely separated and feebly elevated ; directed more or less outwards	Ocelli widely separated ; strongly elevated ; directed outwards.
Rostrum extending beyond anterior margin of prosternum	Rostrum not extending beyond anterior margin of prosternum.
Stridulatory furrow present	Stridulatory furrow absent.
Discal cell of corium relatively small	Discal cell of corium relatively large.
Seventh abdominal segment in males normal	Seventh abdominal segment in males strongly expanded.
Posterior pronotal lobe not produced posteriorly ; scutellum not concealed	Posterior pronotal lobe strongly produced posteriorly ; scutellum concealed.
Head, body and legs usually strongly setose	Head and legs only setose.

These differences, in my opinion, are such as to warrant the removal of the Ethiopian genera from the Apiomerinae. There is no other subfamily into which they can correctly be placed, therefore I propose a new subfamily, Diaspidiinae, for their reception.

DIASPIDIINAE, subfam. nov.

Macropterous. Head and legs setose. Rostrum thick, straight, extending to anterior margin of prosternum; basal segment very short. Ocelli lateral, elevated. Anterior pronotal lobe much shorter than posterior lobe, the latter strongly produced posteriorly and concealing the scutellum. Connexivum expanded, simple or undulate. Discal cell of corium large. Legs moderately thick; anterior tarsi reduced or absent; when present rest in a sulcus at apex of tibia.

The three genera which the new subfamily contains may be separated by the following key:

- |  |                                   |
|--|-----------------------------------|
| 1. Anterior tarsi absent . . . . .   | <i>Cleontes</i> Stål, 1874        |
| - Anterior tarsi present . . . . .   | 2                                 |
| 2. Vertex twice as wide as an eye; basal antennal segment shorter than head                        | <i>Rodhainiella</i> Schout., 1913 |
| - Vertex subequal in width to an eye; basal antennal segment as long or longer than head . . . . . | <i>Diaspidius</i> Westw., 1857    |

Field observations on some of the genera have revealed instances of the use of a resin or some such exudation from trees. This substance is applied to the anterior tibiae for the purpose of catching other insects for food. This method is also employed by members of the Oriental subfamily Ectinoderiinae.

Subfamily RHAPHIDOSOMINAE

**HARRISOCORIS** gen. nov.

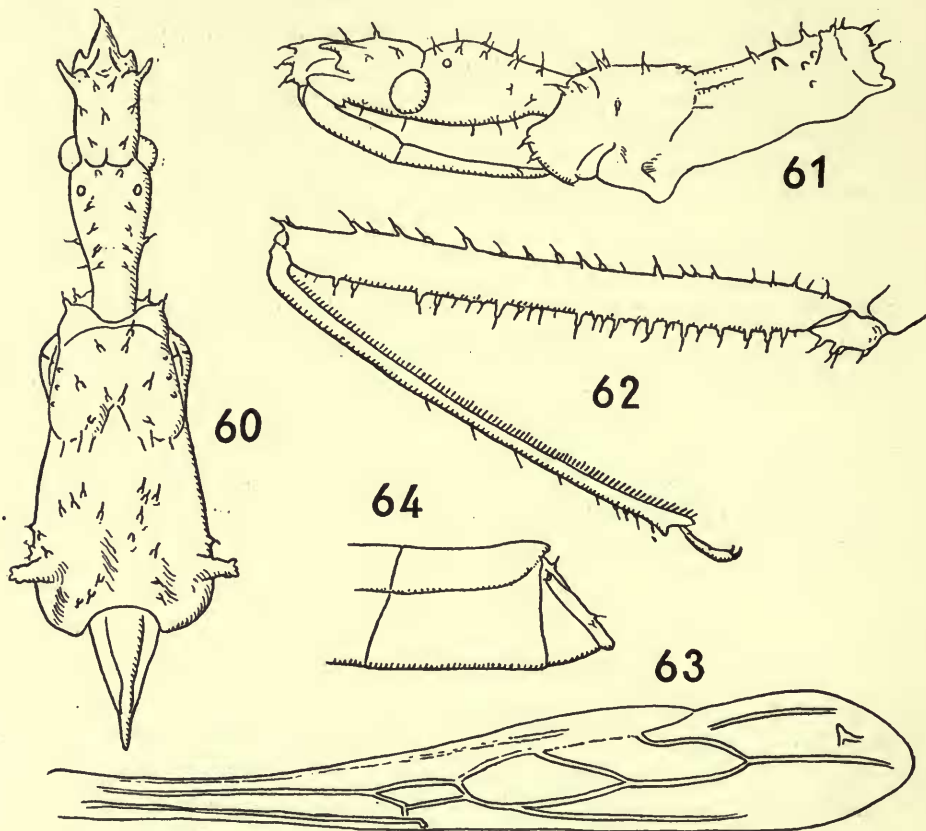
SIZE. Small. Elongate. Antennae missing. Head shorter than pronotum; antenophores nearer to apex of head than to eyes and with a spine basally; anteocular shorter than postocular, both with setigerous tubercles; vertex wider than an eye; ocelli small, lateral, widely separated; basal segment of rostrum thicker than segment 2 and somewhat shorter, extending to middle of eyes. Pronotum longer than wide; anterior lobe shorter than posterior lobe with a median, longitudinal sulcus basally; transverse sulcus interrupted medially; posterior lobe with indications of longitudinal carinae and with humeral angles tuberculate; both lobes with setigerous tubercles; posterior margin of posterior lobe deeply excised; scutellum longer than wide with apex produced. Hemelytra not extending to apex of abdomen; base of membranal cells subequal in width. Abdomen with sides parallel; external apical angle of seventh connexival segment produced. Anterior femora moderately incrassate; median and posterior femora, all tibiae slender, the former with apex somewhat incrassate; femora with setigerous tubercles. Head, body, legs, corium with dense, minute flattened and spatulate setae.

Type species, *Harrisocoris africanus* sp. n. Text-figs. 60-64.

*Harrisocoris africanus* sp. n.

COLOUR. Light brown; connexival segments with a suffused black spot apically. Setae pale fulvous; setae on abdomen ventrally white.

STRUCTURE. Vertex three times as wide as an eye; ocellar interspace equal in width to vertex. Produced apex of scutellum acute, horizontal. Seventh abdominal segment with tubercles near apical margin.



FIGS. 60-64. *Harrisocoris africanus* gen. nov. sp. n. (60) Head pronotum and scutellum, dorsal view. (61) Head and pronotum lateral view. (62) Anterior leg. (63) Hemelytron. (64) Apex of abdomen lateral view.

Total length, 12.50 mm.; hemelytra, 7.20 mm.; greatest pronotal width, 1.50 mm. One ♀ (holotype), Tanganyika, Morogoro, 24.iv.1930, W. V. Harris (on cotton) (B.M. 1950-96).

Allied to *Lopodytes* Stål, 1853, *Öfv. Vet.-Ak. Förh.* **10**, p. 263, from which it differs in having the head relatively less elongate, the postocular more globose, the ante- and postocular with setigerous tubercles, the antennophores with a spine, the tylus with setigerous tubercles, the anterior pronotal lobe much shorter than the posterior



lobe, both lobes with setigerous tubercles, the posterior lobe with humeral angles tuberculate, the posterior margin strongly excised, the cells of the membrane of approximately the same size and the femora with setigerous tubercles.

Subfamily HARPACTORINAE

**THEREUTOCORIS** gen. nov.<sup>1</sup>

SIZE. Moderate. Smooth. Antennae longer than head, body and hemelytra together. Antennophores equidistant between eyes and apex of head; basal segment of rostrum shorter than segment 2, extending to anterior margin of eyes; head longer than pronotum; eyes prominent, shorter than height of head; vertex subequal in width to an eye; antecular shorter than postocular; ocelli small, widely separated. Anterior pronotal lobe shorter than posterior lobe with a median, longitudinal sulcus basally; posterior lobe widely shallowly depressed medially; posterolateral angles not produced. Scutellum longer than wide with apex produced; disc feebly depressed. Hemelytra extending beyond apex of abdomen; discal cell of corium longer than wide; base of external cell of membrane narrower than base of internal cell. Abdomen feebly constricted basally. Legs slender; femora feebly incrassate and constricted apically.

Type species, *Thereutocoris amoenus* sp. n. Text-figs. 65-68.

***Thereutocoris amoenus*** sp. n.

COLOUR. Antennae black; basal segment with 2, segment 2 with 1 wide, pale yellow annulations. Head black, except base pale reddish yellow. Thorax reddish yellow; posterior pronotal lobe with a large black spot on humeral angles; apex of scutellum white. Corium reddish yellow, broadly black basally, except extreme base; apex suffused with piceous; membrane dark violaceous infumate in basal half; remainder pale yellow. Abdomen with segments 2-5 reddish and remainder black; connexival segments 5-7 with a pale yellowish spot. Coxae, trochanters, femora reddish yellow; femora with apex black, a wide subapical pale yellow annulation and a suffused blackish annulation medially; tibiae and tarsi black, the former with 2 wide, pale yellow annulations.

STRUCTURE. Segment 2 of antennae a little less than half as long as basal segment; segments 3 and 4 together somewhat longer than basal segment. Segments 2 and 3 of rostrum together about twice as long as basal segment. Sulcus on anterior pronotal lobe very narrow and within a very shallow depression. Produced portion of scutellum horizontal, rounded apically and with a semicircular sulcus subapically. Discal cell of corium about three times longer than wide.

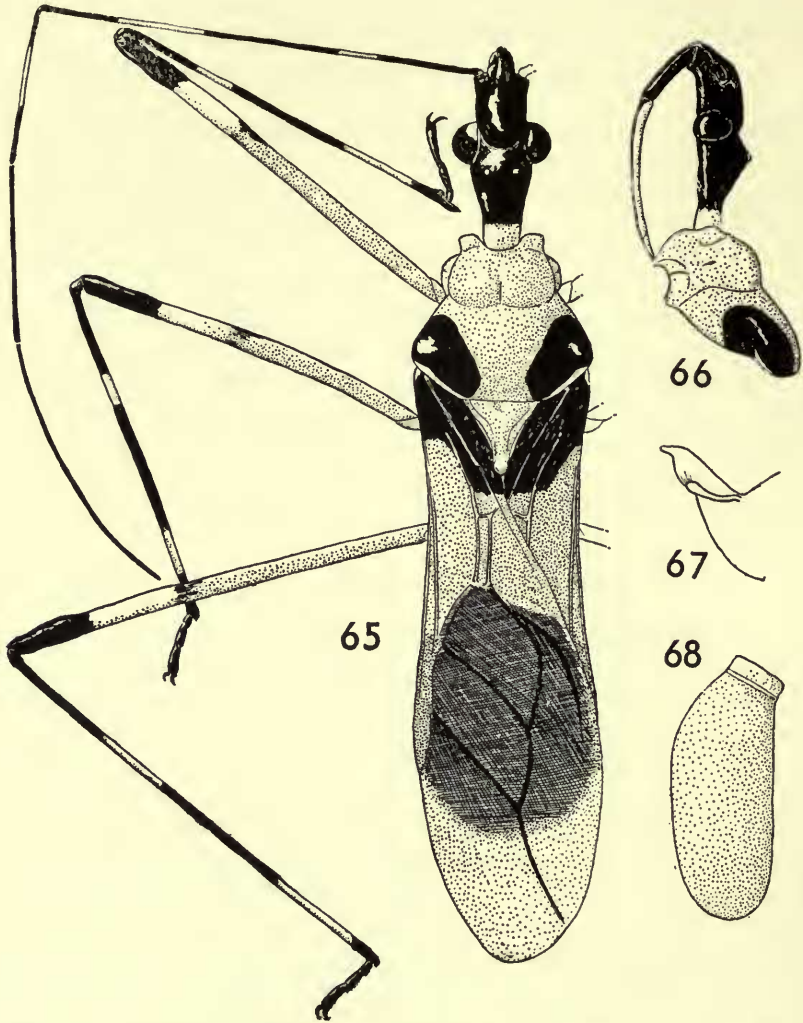
Total length, ♂ 13.00 mm., ♀ 15.00 mm.; hemelytra, ♂ 10.00 mm., ♀ 11.50 mm.; greatest pronotal width, ♂ 2.80 mm., ♀ 3.00 mm.

One ♂ (holotype), Solomon Islands, Guadalcanal, Gold Ridge, 20.iii.1955, 1 ♀ (paratype), Guadalcanal, Tinakula River, 19.iii.1955, 1 ♀ (paratype), Guadalcanal,

<sup>1</sup> θηρευτης = hunter, κορις = bug.

Sutakiki River, 23.vi.1956, E. S. Brown, 1 ♀, Guadalcanal, 5000 ft., xii.1934, C. Bird (*per* R. A. Lever), B.M. 1948-548).

Black humeral spots are absent from the ♀ from Tinakula River.



FIGS. 65-68. *Thereutocoris amoenus* gen. nov., sp. n. (65) Whole insect, dorsal view. (66) Head and pronotum, lateral view. (67) Apex of pygophore, lateral view. (68) Ovum.

Ovum. (Text-fig. 68). Cylindrical, feebly curved towards opercular end; differentiated portion of chorion moderately long; chorion smooth, shining, yellow; differentiated portion white, 2.00 mm. (dissected). This is a relatively large ovum.

Allied to *Euagoras* Burmeister, 1835, *Handbuch*, 2, p. 226 (*pro parte*).

Differs in the relative lengths of the head and rostral segments, structure of the scutellum and venation of the hemelytra.

**PROTENTHOCORIS** gen. nov.<sup>1</sup>

SIZE. Small. Basal antennal segment longer than head, pronotum and scutellum together; segment 2 a little more than half as long as basal segment; segment 3 half as long as basal segment; segment 4 two-thirds as long as 3. Head shorter than pronotum; antennophores projecting beyond apex of head with a spine at base; anteocular shorter than postocular, more or less vertical apically; postocular tuberculate laterally; juga produced anteriorly; ocelli widely separated; vertex wider than an eye; basal segment of rostrum moderately thick, as long as remaining segments together, extending beyond posterior margins of eyes. Pronotum as long as wide; anterior lobe shorter than posterior lobe with tubercles laterally and on collar laterally; lateral angles of collar not produced. Scutellum longer than wide; disc not excavate or foveolate; prosternum medially produced. Hemelytra extending beyond apex of abdomen; base of external cell of membrane wider than base of internal cell. Anterior femora moderately incrassate; anterior tibiae, median and posterior legs slender. Pleura with area with dense, tomentose pubescence.

Type species, *Protenthoris sedulus* sp. n. Text-figs. 69-73.

***Protenthoris sedulus*** sp. n.

COLOUR. Antennae and legs pale stramineous; basal antennal segment with feeble reddish suffusion basally. Head and pronotum, scutellum, upper area of propleura testaceous. Rostrum, gula, remainder of propleura, meso- and metapleura pale stramineous. Corium subhyaline, almost colourless with faint reddish suffusion apically; clavus, area between claval suture and *Cu*, membrane hyaline, almost colourless. Abdomen dorsally yellow; connexival segments 4-6 with a large blackish spot basally; abdomen ventrally whitish.

STRUCTURE. Ocellar interspace twice as wide as space between an ocellus and an eye. Tubercles on postocular, lateral angles of collar, and on anterior pronotal lobe laterally very short, rounded. Anterior pronotal lobe smooth; posterior lobe rugose punctate; humeral angles obtusely conical; produced part of prosternum very short, conical.

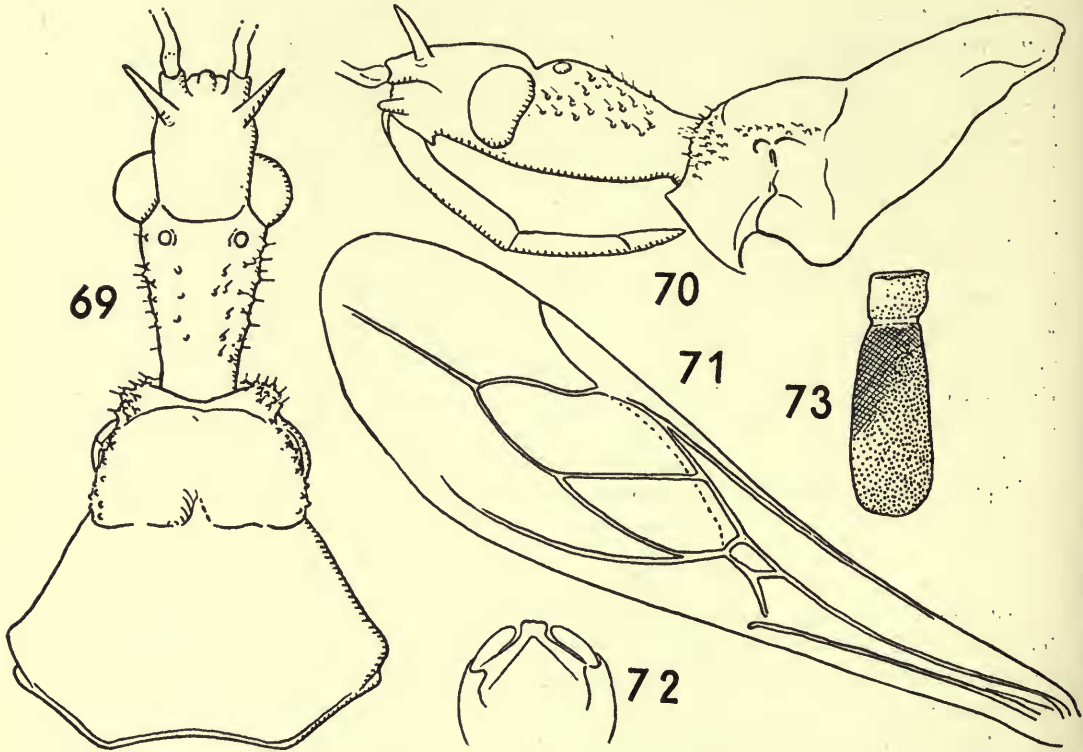
Total length, ♂ 10.00 mm., ♀ 11.50 mm.; hemelytra, ♂ 7.00 mm., ♀ 8.00 mm.; greatest pronotal width, ♂ 2.00 mm., ♀ 2.50 mm.

One ♂ (holotype), Uganda, Entebbe, 17. viii. 1938, H. Hargreaves, 1 ♂, 2 ♀ (paratypes), Kisumu, April, 1936, H. J. A. Turner.

The specimens from Kisumu differ in having a short spine on the humeral angles; apart from this there appear to be no other characters which would justify their being considered another species. They differ in colour in that the connexivum is devoid of spots.

<sup>1</sup> *προτευθης* = a gourmand, *κορις* = a bug.

Ovum (text-fig. 73). Cylindrical with a relatively long differentiated portion of the chorion; partly smooth, partly reticulate; operculum with abundant short, erect, slender processes. Brownish yellow; differentiated portion of chorion white, 1.60 mm. (dissected).



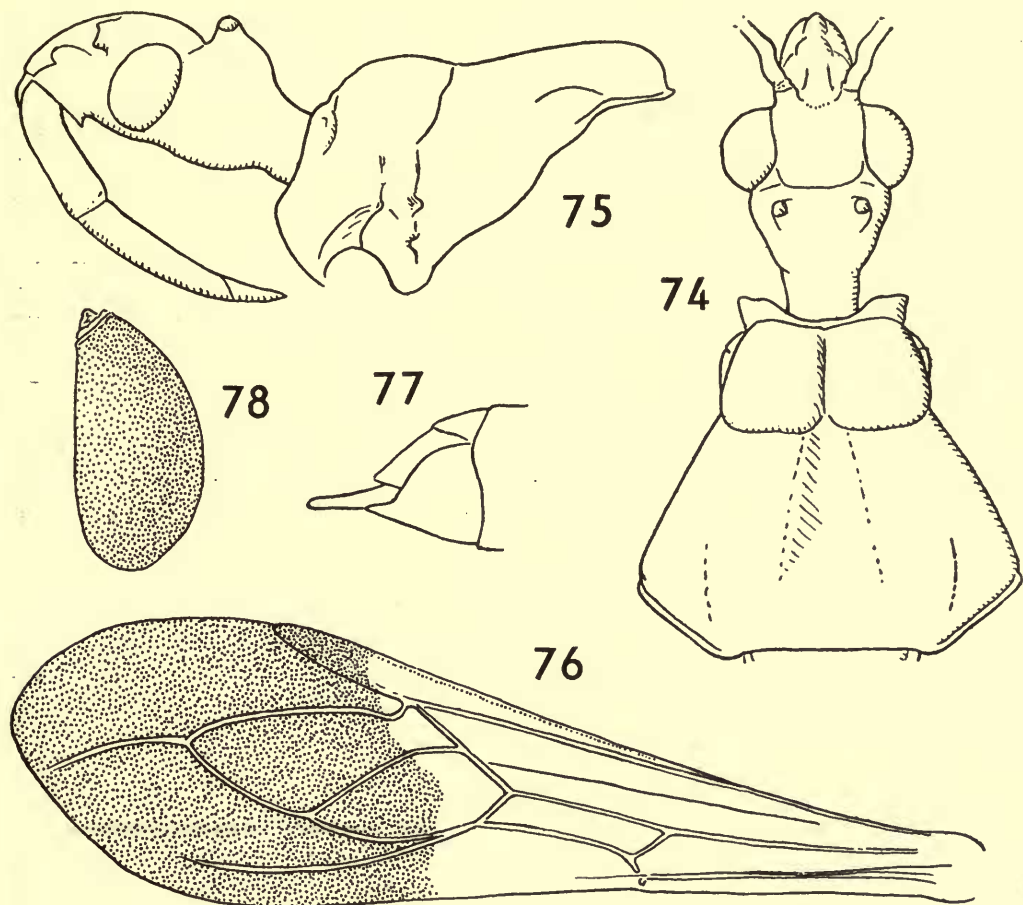
FIGS. 69-73. *Protenthocoris sedulus* gen. nov., sp. n. (69) Head and pronotum, dorsal view. (70) *Idem*, lateral view. (71) Hemelytron. (72) Pygophore, dorsal view. (73) Ovum.

Apparently should be placed near *Nagusta* Stål, 1859, *Öfv. Vet.-Ak. Förh.* 16, p. 374.

### **NANYUKICORIS** gen. nov.

SIZE. Moderate. Smooth. Basal antennal segment longer than head; shorter than head and pronotum together; segment 2 much shorter than basal segment; segment 3 longer than 2; segment 4 missing. Head shorter than pronotum; antocular shorter than postocular, the latter somewhat abruptly narrowed to base; vertex wider than an eye; ocelli widely separated, elevated; basal segment of rostrum moderately thick, extending to middle of eyes, shorter than segment 2.

Pronotum wider than long; anterior lobe shorter than posterior lobe, medially longitudinally sulcate and with lateral angles of collar produced; posterior lobe with a median, longitudinal depression, concurrent with sulcus on anterior lobe; humeral angles marginally, dorsoventrally compressed; posterolateral angles



FIGS. 74-78. *Nanyukicoris elegans* gen. nov. sp. n. (74) Head and pronotum, dorsal view. (75) *Idem*, lateral view. (76) Hemelytron (lower scale of magnification). (77) Apex of abdomen, lateral view. (78) Ovum.

very feebly produced. Scutellum as long as wide with apex produced and disc foveolate. Hemelytra extending beyond apex of abdomen; discal cell of corium longer than wide; base of membranous cells subequal in width. Abdomen somewhat constricted basally; gonapophyses of eighth abdominal segment produced. Anterior and median femora nodulose.

Type species, *Nanyukicoris elegans* sp. n. Text-figs. 74-78.

*Nanyukicoris elegans* sp. n.

COLOUR. Antennae black. Anteocular black; gula and postocular yellow, the latter with black area laterally; rostrum yellow; basal segment basally black. Pronotum black, except collar, humeral and posterolateral angles and posterior margin yellow; pleura yellow with greater part of propleura black; mesopleura with a black spot. Corium yellow with apex black; clavus, area between claval suture and *Cu*, discal cell, hyaline yellow; membrane infumate with base of cells yellow; metathoracic wings hyaline, pale yellow with apical half infumate. Abdomen yellow with genital segments black. Coxae, trochanters, femora yellow; posterior femora with 2 piceous annulations; anterior and median tibiae piceous with base broadly yellow; posterior tibiae black, narrowly yellow basally; tarsi piceous.

STRUCTURE. Segment 2 of antennae one-fifth as long as basal segment; segment 3 about twice as long as 2. Vertex nearly twice as wide as an eye. Ocellar interspace twice as wide as space between an ocellus and an eye. Discal foveole on scutellum deep. Discal cell of corium about one-third as wide as long.

Total length, 12.00 mm.; hemelytra, 10.00 mm.; greatest pronotal width, 3.00 mm.

One ♀ (holotype), Kenya, Nanyuki, v. 1948, van Someren.

Ovum (text-fig. 78). Ampulliform, strongly narrowed towards opercular end; smooth; minutely reticulate; differentiated portion of chorion very short; operculum with an irregular conical elevation. Pale stramineous; differentiated portion of chorion white, 1.50 mm. (dissected).

Belongs to the *Harpagocoris-Callilestes* group. Differs from *Harpagocoris* Stål, 1855, *Öfv. Vet.-Ak. Förh.* **12**, p. 262, in the shape of the head, the postocular being relatively wider and shorter, in having the basal rostral segment relatively shorter, the posterior pronotal lobe medially sulcate, the base of the membranal cells subequal in width. It differs similarly from *Callilestes* Stål, 1866, *Öfv. Vet.-Ak. Förh.* **13**, p. 285, and also has the apex of the scutellum non-lamellate.

*Irantha doreyana* Distant, 1903, *Ann. Mag. nat. Hist.* **11**, p. 366

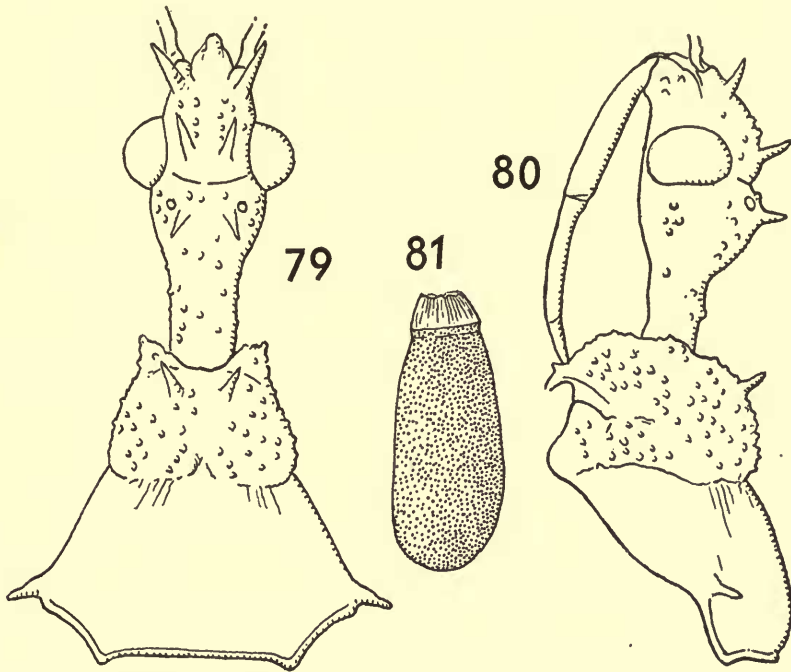
This species should not have been placed in *Irantha*. It cannot be properly assigned elsewhere, therefore I establish the following new genus to receive it:

**PARIRANTHA** gen. nov.

SIZE. Small. Antennae longer than head, pronotum and scutellum together. Head subequal in length to pronotum; vertex wider than an eye; ocelli widely separated; antennophores nearer to apex of head than to eyes; anteocular shorter than postocular, the latter globose then strongly constricted to base; both with tubercles and spines; basal segment of rostrum subequal in length to remaining segments together. Anterior pronotal lobe shorter than posterior lobe, the former with spines and tubercles, the latter rugose punctate; humeral angles produced; posterolateral and posterior margins of posterior lobe thickened. Scutellum triangular, as wide as long; apex not produced. Hemelytra extending to apex of abdomen;

discal cell longer than wide; base of internal cell of membrane equal in width to base of external cell. Anterior femora incrassate, nodulose and spinose; median and posterior femora feebly incrassate subapically; anterior femora moderately thick, feebly curved. Abdomen somewhat constricted basally.

Type species, *Parirantha doreyana* (Distant). Text-figs. 79-80.



FIGS. 79-81. *Parirantha doreyana* (Distant), gen. nov. (79) Head and pronotum, dorsal view. (80) *Idem*, lateral view. *Iranthoides belua* (Miller), gen. nov. (81) Ovum.

### *Parirantha doreyana* (Distant)

COLOUR. Pale testaceous (? spirit material).

STRUCTURE. Spines on vertex and postocular erect, a little longer than spines on antennophores which are feebly curved and directed forwards; vertex twice as wide as an eye; ocellar interspace about twice as wide as space between an ocellus and an eye.

Total length, 11.30 mm.; hemelytra, 6.60 mm.; greatest pronotal width, 2.50 mm.

One ♀ (holotype), Dorey, Wallace (B.M. 65-13).

Differs from *Irantha* Stål, 1861, *Stett. ent. Zeit.* **22**, p. 137 in the shape of the head which is relatively thicker, in the armature of the head and anterior femora and in the absence of tubercles on the connexivum and short spines on the tibiae.

*Irantha belua* Miller, 1941, *Journ. F.M.S. Mus.* **18**, pp. 368-370

This species was incorrectly placed in *Irantha* (loc. cit.). Since it cannot be placed correctly in any other known genus, I propose the new genus *Iranthoides* for it.

**IRANTHOIDES** gen. nov.

SIZE. Small. Basal antennal segment shorter than head ; segment 2 less than half as long as basal segment. Head subequal in length to pronotum ; anteocular shorter than postocular, the latter globose then strongly constricted ; antennophores equidistant between eyes and apex of head ; ante- and postocular tuberculate and with erect spines on upper surface ; constricted part of postocular with few tubercles ; ocelli widely separated ; basal segment of rostrum subequal in length to segment 2. Pronotum about as wide as long ; anterior lobe shorter than posterior lobe, the former tuberculate, the latter rugose punctate ; humeral angles produced. Scutellum longer than wide, apex produced, spatulate, oblique. Hemelytra extending beyond apex of abdomen. Base of abdomen constricted ; external margin of connexivum tuberculate. Anterior femora incrassate, tuberculate and spinose ; anterior tibiae feebly curved ; median and posterior legs slender, the femora feebly incrassate apically.

The ovum (text-fig. 81) (dissected), of *Iranthoides belua* is cylindrical, narrowly constricted at opercular end. Chorion smooth ; differentiated portion of chorion formed of fine fused filaments. Chorion brown ; differentiated portion whitish, 1.60 mm.

**BUBIACORIS** gen. nov.

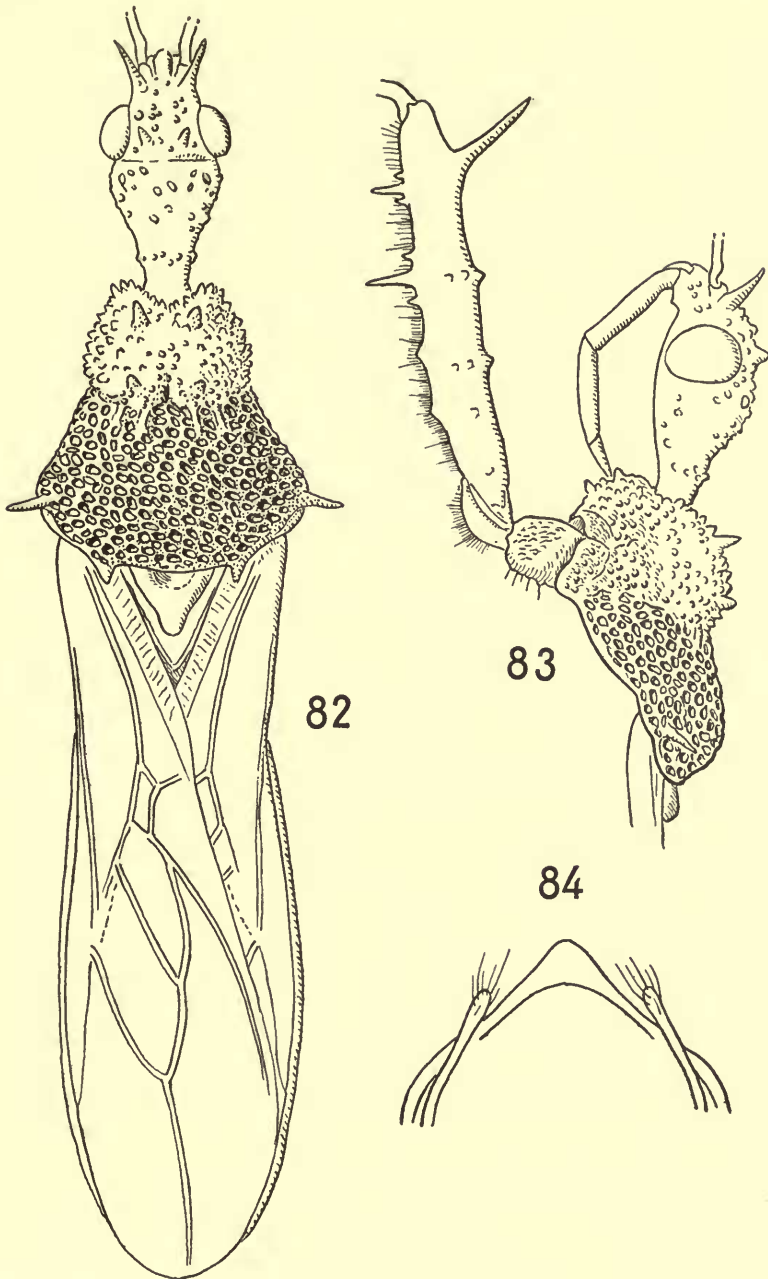
SIZE. Small. Basal antennal segment longer than head ; segment 2 less than half as long as basal segment ; segment 3 one-third longer than 2 ; segment 4 twice as long as 2 ; antennophores equidistant between eyes and apex of head with a spine basally ; anteocular shorter than postocular ; vertex wider than an eye, tuberculate ; ocelli widely separated, directed laterally ; postocular globose then narrowed to a distinct neck, both tuberculate ; basal rostral segment subequal in length to remaining segments together. Anterior pronotal lobe subequal in length to posterior lobe, tuberculate and with a median longitudinal sulcus basally ; posterior lobe reticulately rugose and with short carinae anteriorly ; humeral angles with a spine ; posterolateral angles produced ; scutellum triangular, as wide as long, disc excavate and with apex truncate. Hemelytra extending to apex of abdomen ; base of inner cell of membrane narrower than base of external cell. Abdomen somewhat constricted basally. Anterior femora nodulose with 1 long spine on upper surface and several much shorter spines on lower surface subapically ; median and posterior femora feebly nodulose. Pleura with short, tomentose pubescence.

Type species, *Bubiacoris bicolor* sp. n. Text-figs. 82-84.

**Bubiacoris bicolor** sp. n.

COLOUR. Basal segment of antennae piceous with 2 suffused brown annulations ; segment 2 piceous ; segments 3 and 4 brown. Head and thorax brown ; head and pronotum dorsally, scutellum black ; humeral angles and spines brown. Rostrum brown suffused with piceous. Abdomen pale stramineous. Corium piceous ; membrane infumate. Anterior legs piceous ; median and posterior coxae pale stramineous ;





FIGS. 82-84. *Bubiacoris bicolor* gen. nov., sp. n. (82) Whole insect, dorsal view (antennae and legs omitted). (83) Head, pronotum, anterior coxa, trochanter and femur, lateral view. (84) Apex of pygophore, dorsal view.

median and posterior femora and tibiae light brown, the former with dark brown suffusion apically; tarsi piceous. Pubescence on pleura white.

STRUCTURE. Basal antennal segment equal in length to head and anterior pronotal lobe together. Vertex with 2 moderately long conical tubercles and numerous low, rounded tubercles; postocular with low, rounded tubercles, those on neck arranged annularly; ocellar interspace almost as wide as vertex. Anterior pronotal lobe with 2 moderately long, subacute tubercles anteriorly, 2 shorter tubercles sub-basally; other tubercles mostly very short, conical or rounded.

Total length, 11.00 mm.; hemelytra, 6.50 mm.; greatest pronotal width, 2.00 mm. (excluding spines).

One ♂ (holotype), New Guinea, Lae, Buba, 22.xi.1956, E. S. Brown.

Allied to *Irantha* Stål, 1861, *Stett. ent. Zeit.* 22, p. 137. Differs in having the head shorter in relation to pronotum, the postocular with the constricted portion about as long as the globose portion, the anterior pronotal lobe tuberculate, the posterior margin of the posterior pronotal lobe lacking setigerous tubercles, the base of the external cell of the membrane wider than the base of the internal cell, the anterior femora smooth and not minutely granulose and the anterior tibiae lacking minute spines on the lower surface.

### *NOTHOCLEPTES* gen. nov.<sup>1</sup>

SIZE. Small. Antennae relatively thick; basal segment longer than head and constricted in basal fourth; segments 2 and 3 together and segment 4 longer than basal segment. Head shorter than pronotum; antennophores nearer to eyes than to apex of head; anteocular shorter than postocular, the latter with a distinct neck; ocelli relatively large, widely separated, somewhat elevated; vertex wider than an eye; transverse sulcus almost straight, situated behind eyes; basal segment of rostrum subequal in length to segment 2. Anterior pronotal lobe smooth, shorter than posterior lobe, medially longitudinally sulcate for two-thirds basally and with a feeble median, transverse sulcus; posterior lobe rugulose, except humeral angles smooth; posterior margin very feebly concave; prosternum not transversely striate. Scutellum with a Y-shaped carina; disc depressed. Hemelytra extending just beyond apex of abdomen; corium with abundant setae; discal cell of corium longer than wide; base of external cell of membrane narrower than base of internal cell. Anterior tibiae thick; median and posterior tibiae slender; all tibiae abundantly setose; anterior femora feebly curved, somewhat incrassate towards apex; tuberculate; median and posterior femora without tubercles; all femora with sparse setae.

Type species, *Nothocleptes collaris* sp. n. Text-figs. 85-88.

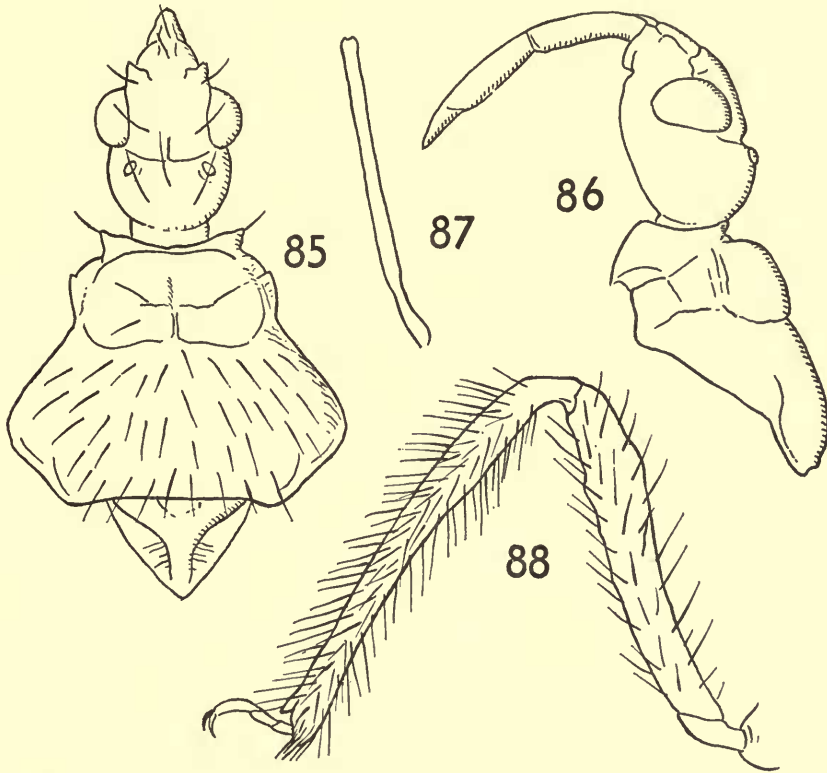
### *Nothocleptes collaris* sp. n.

COLOUR. Antennae, head and rostrum piceous. Pronotum yellow; collar, anterior lobe laterally, propleural episternum, meso- and metapleural piceous;

<sup>1</sup> νόθος = a bastard, κλεπτης = a thief.

scutellum, corium and abdomen yellow; hemelytral membrane hyaline faintly infumate. Coxae dark yellow; trochanters, femora and tibiae piceous.

STRUCTURE. Vertex with a short, narrow, median, longitudinal sulcus basally; ocellar interspace a little less wide than vertex; ocelli directed outwards and forwards feebly. Disc of scutellum very feebly depressed. Base of external cell of hemelytral membrane half as wide as base of internal cell. Setae on legs mostly long, on corium short. Tubercles on femora minute.



FIGS. 84-88. *Nothocoris collaris* gen. nov., sp. n. (85) Head, pronotum and scutellum, dorsal view. (86) Head and pronotum, lateral view. (87) Basal antennal segment. (88) Anterior leg.

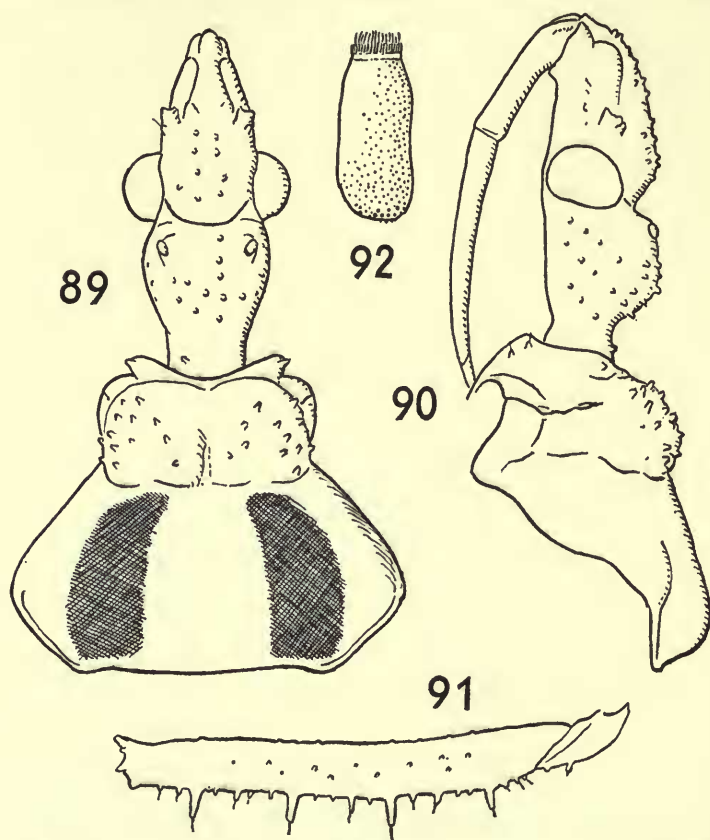
Total length, 7.00 mm.; hemelytra, 4.40 mm.; greatest pronotal width, 1.90 mm. One ♀ (holotype), Kenya, Nairobi, ix. 1934, van Someren.

Allied to *Sphedanolestes* Stål, 1866, *Öfv. Vet.-Ak. Förh.*, pp. 284, 288. Differs in having the head considerably shorter than pronotum, width of eyes less than half that of vertex, antennophores nearer to eyes than to apex of head, the basal rostral segment subequal in length to segment 2, legs not very long and femora not nodulose but feebly tuberculate, and also in having the prosternal furrow non-striate and the basal antennal segment widely constricted basally.

*Moto biplagiatus* sp. n.

(Text-figs. 89-92)

COLOUR. Antennal segments 1 and 2 piceous; segment 3 yellow, narrowly piceous basally; segment 4 missing. Head, body and legs pale yellow; legs and rostrum paler; tylus, suffusion behind ocelli, brown; postocular reddish. Anterior pronotal lobe dark yellow; posterior lobe with 2 large, sublunate brown spots; propleural



FIGS. 89-92. *Moto biplagiatus* sp. n. (89) Head and pronotum, dorsal view. (90) *Idem*, lateral view. (91) Anterior femur. (92) Ovum.

episternum, meso- and metapleura with reddish brown suffusion. Scutellar disc dark yellow. Corium suffused with infumate except basally; membrane faintly infumate. Connexival segments 5-7 with a narrow, marginal piceous spot.

Allied to *Moto rhodesianus* Miller, 1950, *Proc. zool. Soc. Lond.* 120, p. 257, but differs in less robust habitus, coloration, less strongly tuberculate head and anterior pronotal lobe, the tubercles being also relatively smaller and in the armature of the anterior femora.

Total length, 8.50 mm.; hemelytra, 5.50 mm.; greatest pronotal width, 2.00 mm.

One ♀ (holotype), 1 ♀ (paratype), Tanganyika, Kinde, Uluguru Mts., Dec. 1930, W. V. Harris (B.M. 1950-96).

Ovum (text-fig. 92). Cylindrical, somewhat obliquely rounded truncate basally; narrower at opercular end; apical margin of chorion with short, closely placed filaments; operculum with longer, coarser filaments; chorion smooth, except base minutely granulose. Chorion yellow; chorionic and opercular filaments white, 1.20 mm.

